APRIL
1950

BUS TRANSPORTATION

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Summarizing Important new developments — pages 39-41
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News of the Industry

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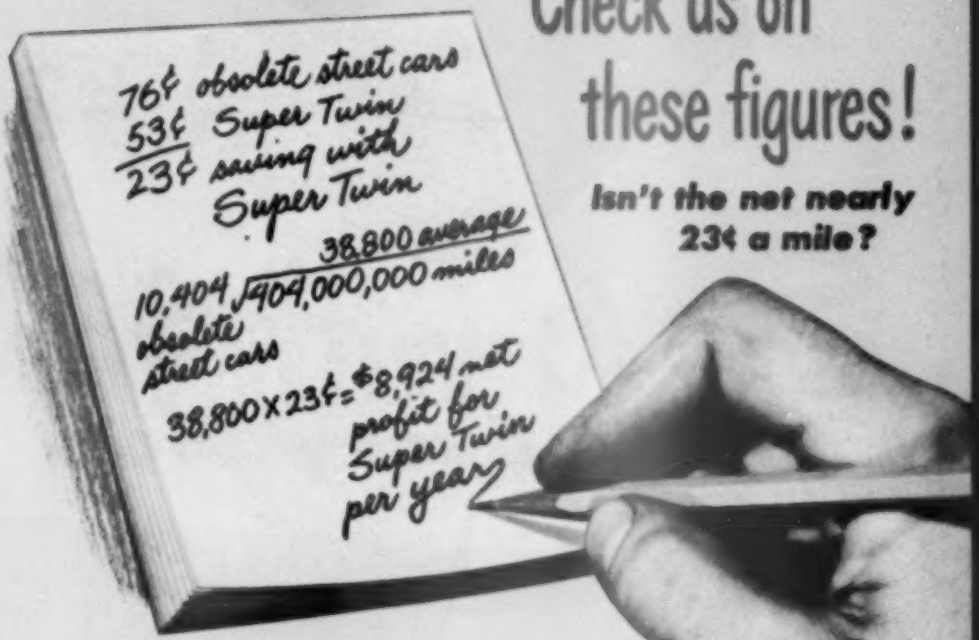
Check us on these figures!

Isn't the net nearly 23¢ a mile?



A few days ago we were looking over the transit industry's operating figures for 1949, noting that 10,404 obsolete streetcars traveled approximately 404,000,000 revenue miles. Average revenue per streetcar mile was 70 cents.

Operating cost, including depreciation, per obsolete streetcar mile was about 76 cents. *That's a loss of 6 cents a mile on equipment which produced over a fifth of urban transit revenue.*

Naturally, we couldn't resist calculating what 58-passenger SuperTwins would have earned if they had been in operation on these lines. On the basis of actual operating experience in Omaha, Chicago, Cleveland and Brooklyn, operating cost of the SuperTwin Coach averages no more than 53 cents a mile.

This operating economy would have resulted in a net profit of over $92,000,000—a net of $8,924 per vehicle—a net of 23 cents a mile!

6 cents loss—or 23 cents profit? Retirement of obsolete streetcars is obviously not a problem of the future but a pressing need of TODAY.

6 cents loss compared with 23 cents profit! Any banker understands this language, particularly when *net profit* pays off your entire investment in SuperTwins within *three years!*

Wouldn't it pay you to see the 10 new SuperTwin motor coaches in operation in Omaha or the SuperTwin trolley coach in Chicago NOW?

A-8004

TWIN COACH COMPANY
KENT, OHIO

Save-with safety

On Every Stop

Use American Brakeblok—the safe-stop thick block. Gives instant response under all conditions, on all equipment. Delivers more stops and more mileage. Reduces replacements and maintenance — submerges first cost in savings. Bank on it!

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BUS TRANSPORTATION

With which is consolidated Bus Age

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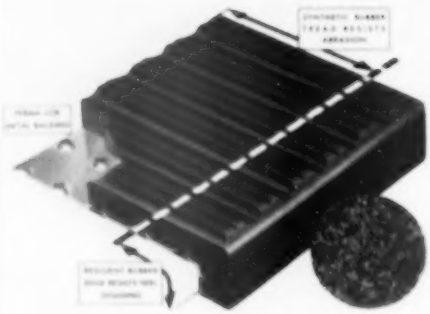
WATCH YOUR STEP



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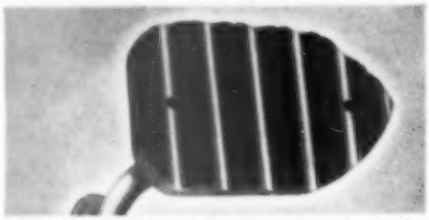

GREATER SAFETY from pedal plates too! Another product with all the safety and long life qualities of Rub-Bub step plate is Rub-Bub Heavy-Duty Safety Pedal Plate. Made with the same Permo-Lok metal backing, the same Rub-Bub synthetic compound.

ALSO MADE IN CANADA TO THE SAME FINE STANDARDS

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High visibility of the white edge impulsively calls passenger attention to the step, provides maximum safety where damage claims are greatest. To really appreciate the safety value of contrast, you must see the white step edge at night!

Construction of this extra-safe step plate is identical to the standard Rub-Bub Heavy-Duty Safety Step Plate except for the detachable edge.

Specify Rub-Bub step plate with the white safety step edge on your next fleet order—and make a test installation now in your present vehicles. Nearly *four times more* Rub-Bub safety flooring was installed in new urban transit vehicles last year *than all other makes of flooring combined!*

RUB-BUB
Transportation Products

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Here's comfort that lasts—and lasts!

WHEN you specify **Airfoam** cushioned seating, you're sure of comfort that lasts a long, long time. Bus companies report that **Airfoam** cushioned seats in service for 6 to 8 years look good for years to come.

For this buoyant latex material doesn't wear down, even in the severest usage. Composed of latex, formed into millions of tiny air cells, it keeps its shape without lumping, or hollowing out. Upholstery lasts longer. With **Airfoam,** you can practically write off maintenance expense.

No wonder more and more lines are replacing worn-out cushioning with **Airfoam,** or specifying it on new equipment.

Before you order seats again, investigate **Airfoam** cushioning. It pays off, both in economy and good will. For complete information on this durable super-cushioning, write: Goodyear, Manufacturers' Sales Dept., Akron 16, Ohio.

***Airfoam** cushioning provides deep-down, relaxing comfort*

Seats by Ionia Manufacturing Company, Ionia, Michigan

***Airfoam** here means less fatigue for driver, greater safety for everyone*

Airfoam

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When you lubricate engines with TEXACO D-303 MOTOR OIL

Tune in
TEXACO STAR THEATER
starring MILTON BERLE
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time and station.

TEXACO

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KEEP engines clean and they run better, use less fuel, cost less for repairs and maintenance. *Texaco D-303 Motor Oil* assures all these benefits. That's why it's preferred by operators of heavy-duty gasoline and Diesel engines everywhere.

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A Texaco Lubrication Engineer will gladly work with you to increase fleet operating efficiency and bring down costs. Just call the nearest of the more than 2,000 Texaco Wholesale Distributing Plants in the 48 States, or write:

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FOR THE BUS INDUSTRY

A Miracle of Modern Engineering!

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WINDSHIELD WIPER

THE MOST
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AIR MOTOR
DESIGN
IN 20 YEARS!

ONLY 4 MOVING PARTS ★
NO SPRINGS ★
QUICK-CHANGE SHAFT ★
ADJUSTABLE SWEEP ★

ENGER

MOTOR

The New "CHALLENGER" Windshield Wiper Motor is the Latest Addition to the Famous *AIR-PUSH* Line

Bus and truck operators will want to specify this completely redesigned windshield wiper motor for their new units or as replacements for those now in service. With but four moving parts the CHALLENGER offers **exclusive** trouble-free features: quick maintenance in mounted position, economy of air consumption, aluminum body and piston assembly for lighter weight. Consistently tested to operate more than 30 million strokes without maintenance. One additional moving part converts to self-parking. Specify the Air-Push CHALLENGER model on your next windshield wiper motor order. **Lower priced than previous models.** Your satisfaction is guaranteed.

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Sprague DEVICES, INC.

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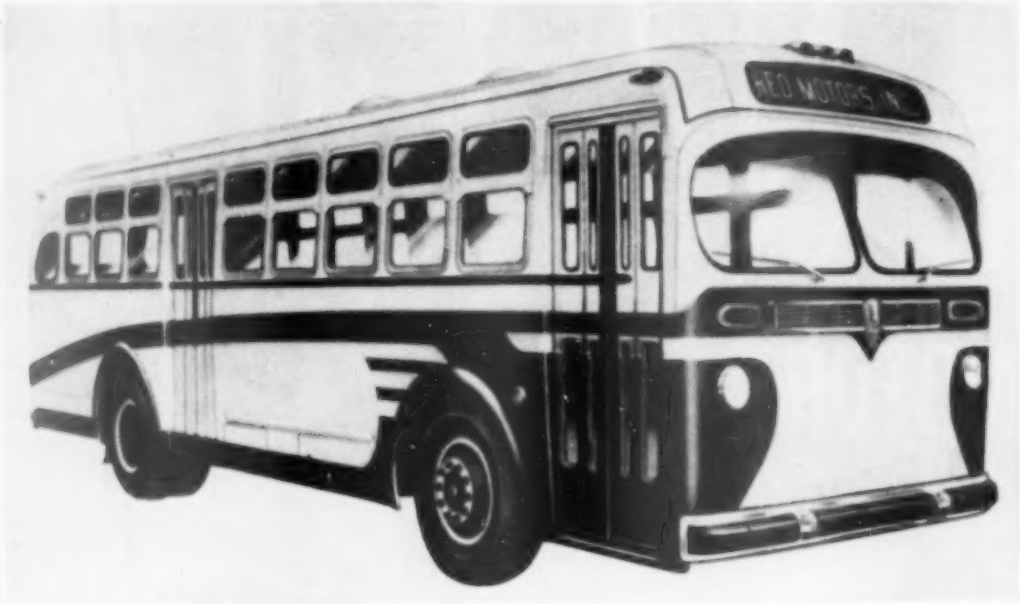
MANUFACTURER OF THE FAMOUS *AIR-PUSH* WINDSHIELD WIPER

Steering AT ITS BEST



REO FLYING CLOUD TRANSIT COACH

ROSS BRINGS EASE . . . AND ECONOMY

OUTSTANDING COMFORT for passenger and driver, rates high among the advantages of the 37-passenger Reo Flying Cloud Coach, shown above . . . Likewise, Reo calls attention to the strength, combined with lightweight for economical operation, which is characteristic of Flying Cloud Coaches. The good steering in these fine coaches is supplied by Ross.

The Ross policy of incorporating advancements in design as they are proved by exhaustive tests has resulted in many recent improvements. Current Ross models have:

(1) ***Increased mechanical reduction*** . . . (2) ***More compactness*** . . . (3) ***Reduction in weight*** . . . (4) ***Greater arm angular-travel*** . . . (5) ***Improved metallurgy*** . . . (6) ***Increased efficiency***.

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ECONOMY

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Ask for a representative to call.

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Cincinnati's 229 New *Trolley Coaches* Effect Substantial Operating Economies

The most impressive, and by far the largest part of the Cincinnati Street Railway Company's $10,000,000 modernization program is the conversion of 13 main lines from streetcar to trolley coach service. Changeovers of all 13 lines, which total 167.9 round trip miles and are operated with 229 new trolley coaches, were made from July, 1947 through July, 1949. According to a spokesman for the company, *"substantial operating economies are already being realized as a result of these recent changeovers."*

A total of 263 rubber-tired electrics are now operated over 15 of the system's heavy traffic lines—and there are more to come. Two additional rail lines are "slated" for conversion during 1950; they are Oakley and Madison Road. Moreover, the management is considering seriously the replacement of streetcars with trolley coaches on several other lines because: TROLLEY COACHES EFFECT SUBSTANTIAL OPERATING ECONOMIES . . . . CLIMB EASILY CINCINNATI'S MANY STEEP HILLS . . . . THE PUBLIC AND CITY OFFICIALS LIKE THEM.

2951-T

TROLLEY COACH AND STREET CAR MATERIAL AND CAR EQUIPMENT

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AT LAST! GET 2 TO 3 TIMES L-O-N-G-E-R VALVE SERVICE...

WITH TOLEDO ROTOCAPS AND HEAVY DUTY VALVES...

Get

BETTER ENGINE PERFORMANCE
LOWER MAINTENANCE COSTS
LONGER VALVE LIFE

NEW AEROTYPE VALVES . . .

Wear 2 to 3 times longer than ordinary valves. Newly developed X-782 facing material is *applied* in *increased thickness*. *Advanced method of swage* hardening gives greater tip hardness, greater resistance to scuffing and wear, plus increased tensile strength.

SODIUM-COOLED VALVES

The ultimate in valves for advanced design engines of today! An aircraft development adopted by Toledo to heavy duty truck and bus use where its unique cooler operating properties increase valve service life.

TOLEDO ROTOCAP*

The positive type valve rotator

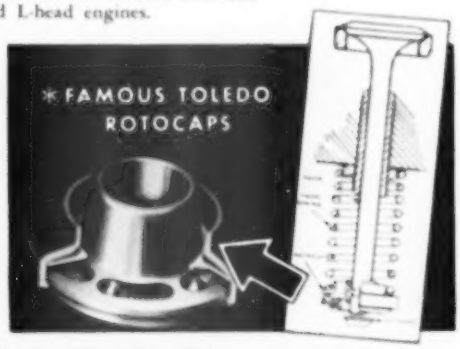
Leading automotive engineers have determined that valve rotation is an absolute necessity for *maximum valve life*.

Toledo Rotocaps were specifically designed for positive type rotation. Positive rotation is the most advanced of the valve rotation methods.

With Toledo Rotocaps the valve is constantly rotating at a controlled rate. Hot spots at any point are eliminated. Valve face and seat surfaces are wiped clean. More positive valve guide lubrication lessens valve guide wear.

Simple to install, sturdily constructed for long life.

Can be used on both overhead and L-head engines.



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That's why the AC Fuel Pump is a symbol of quality among fleet owners everywhere . . . quality in design . . . quality in manufacture.

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FOREMOST BUILDER OF AUTOMOTIVE AND AVIATION WIRING

If we could slip one in your brief case...

you'd insist on a

SUPER RED DIAMOND

engine!

You'd have no trouble at all choosing the most profitable engine for your buses . . . IF you COULD take a Super Red Diamond home with you and study it at your leisure.

It wouldn't take you long to discover that America's largest exclusive truck engine plant has carried engine performance and economy a big step forward in the Super Red Diamond—successor to International's famous Red Diamond.

A feature-by-feature inspection would prove beyond doubt that this six-cylinder, valve-in-head engine, available in 372, 406, and 450 cubic inch displacements, has been engineered from fan to flywheel to new power-plant standards.

You'd see proof of this in the new fuel-saving combustion chamber design . . . in the new longer-lasting cylinder sleeves . . . in the new positive-type crankcase ventilation system . . . in the new longer-life slo-roto valves . . . in dozens of other new features.

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Red Diamond users include General American Aerocoach; Beaver Metropolitan Coaches; C. D. Beck & Company; ACF Brill Motors Company; Crown Body & Coach Corporation; Gillig Brothers; Kalamazoo Coach Company; Spartan Coach & Mfg. Co.; and Superior Coach Corp.

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You'll be on the right track to lower bus operating costs if you do that now.

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McCormick Farm Equipment and Farmall Tractors
Motor Trucks and Industrial Power
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NBC, Sunday afternoons

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Wagner Electric Corporation
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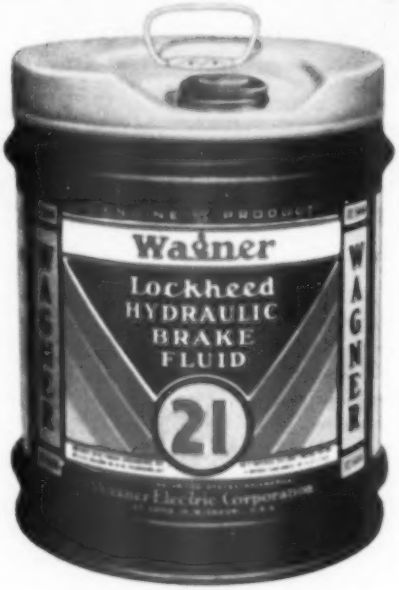

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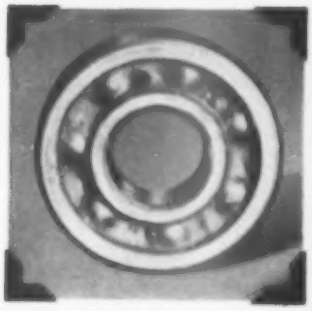
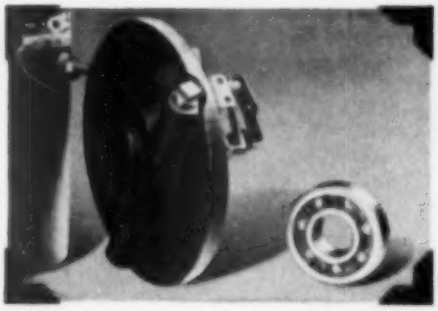
STANDARD ENGINEER'S REPORT

DATA

LUBRICANT	Calol O.H.T. Grease
UNIT	Automotive generator bearing
LUBRICATOR	Sealed at installation
CONDITIONS	Heavy-duty diesel truck engine
MILEAGE	70,000
FIRM	H. G. Makelim Co. San Francisco - Oakland

Sealed generator bearing still perfect after 70,000 miles!





ONE APPLICATION OF CALOL O.H.T. GREASE, sealed in the bearings when this diesel-engine generator was assembled by H. G. Makelim Co., prevented any bearing wear in 70,000 miles of heavy-duty truck service. Generator was disassembled at this time only because it needed new brushes, and for general inspection. Note a permanent plug replaces usual grease fitting.

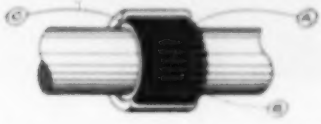
70,000 MILES OF SERVICE did not affect or use up any of the CALOL O.H.T. Grease in the bearings. In special tests, one filling has lubricated bus-generator bearings perfectly for more than 150,000 miles.

"WITH CALOL O.H.T. GREASE SEALED IN BEARINGS, we recommend installing generators without grease fittings," says Frank Balzarini, H. G. Makelim Co. Foreman. "CALOL O.H.T. eliminates need for greasing between overhauls. And eliminating fittings stops over-greasing—a big cause of wear and trouble."

REMARKS: The H. G. Makelim Magneto Repair Company, San Francisco and Oakland, one of the West's oldest automotive-electrical and carburetor repair firms, specializes in servicing equipment in the toughest automotive service—truck, bus and car fleets.

Besides generator bearings in this service, CALOL O.H.T. Grease is recommended for all types of plain and anti-friction bearings in service under extremely severe operating conditions.

How CALOL O. H. T. Grease protects bearings in severest operating conditions



Used in any type of bearing under any operating condition, high temperature-low speed, high speeds to 10,000 rpm, temperatures from minus 10° F. to 400° F., CALOL O.H.T. Grease will last indefinitely.

A. Contains special oxidation inhibitor—prevents rusting, corrosion, hardening of grease at any time.

B. Resists high temperatures — eliminates coking and formation of deposits.

C. Provides excellent seal against water... lubricates efficiently in slight moisture.

CALOL

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Grey-Rock

has VEE-LOK*

Clutch Facings

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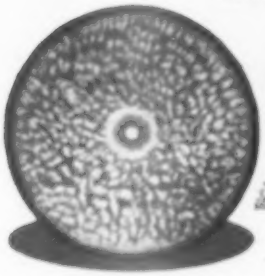

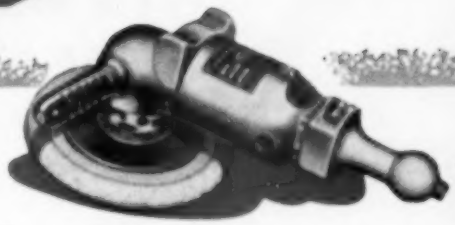

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No. 1200 gives correct speed—long life—dependable service. For easy and quick results get SIOUX.

Permanently lubricated—115 Volt A.C., D.C. Motor. Comes complete and ready to go to work.

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For machine or hand polishing. Quickly cleans all surfaces and polishes in one operation. Restores original finish without injury to it or fine striping. Contains no injurious ingredients. Our own scientific formula—based on years of research.

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TYPE H HEAVY-DUTY FAN BELTS

THEY'RE STRONGER—
handle peak loads easily

RESIST SHOCK—
through specially compounded rubber in compression section

WEAR LONGER
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cover lapped on bottom only gives complete freedom to other three sides

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to meet demands of truck and bus service

GOODYEAR's Type H Heavy-Duty Fan Belts will give you longer service at the lowest cost in the long run—because like all Goodyear products, they're built to the world's highest standard of quality.

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FOR THE BUS INDUSTRY

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VISICOACH

FOR INTERCITY, SUBURBAN AND CHARTER SERVICE

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Bus builder since 1924, The Flxible Company takes pride in recalling the progress made by the industry within 26 short years—progress pictured here by famous, history-making Flxible coaches.

These years of successful designs and productions have all been focused on creating this entirely new and modern Visicoach. Dramatic exteriors and interiors of this new Flxible Coach invite your customers to travel *more*, in a *more* pleasant way.

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PASSENGERS HAVE LONG SUGGESTED

- ★ Panoramic* visibility for look-around enjoyment
- ★ Impressive appearing coaches
- ★ Full stainless side paneling
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- ★ Reclining rear divans

These are but a few of the new VISICOACH features that entice more passengers to ride more frequently.

GROW WITH FLXIBLE

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..THE FULL FLXIBLE

FLXIBLE AIRPORTER

The 23 passenger Flxible Airporter again sets the pace in supplying airport-to-city and deluxe charter equipment. Operators in more than 55 cities testify to the success of this luxury ground travel. Now the new Airporter VISICOACH furnishes new interiors, exteriors and Panoramic* visibility to appeal to even the most discriminate.

25 OR 29 PASSENGER INTERCITY

Choose between these two modern VISICOACHES to get the right seating capacity for greater economy on your intercity schedules and charters too. Here are bigger, more restful interiors plus greater luggage space. (Flxible air conditioning leaves plenty of luggage area.) With either gas or Diesel power, these Flxibles can standardize your parts and maintenance, supplying greater returns on investment. (Illustrated is the Flxible 25 passenger VISICOACH.)

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New slip-stream ventilation, no-draft roof inside fans and power exhaust fans insure fresh cool air for glass roofed interiors. The Sightseer VISICOACH is available in models that range from 25 to 37 passengers. It is designed to draw more attention to your schedule operation, at the same time attracting the cream of the charter business.

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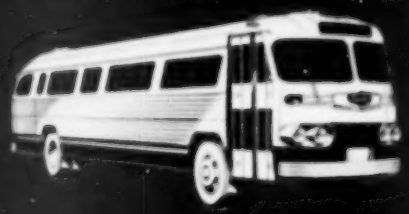
New Flxible concepts here mean increased class appeal and comfort for the Suburban rider. Other important Suburban Express features include: a fast-acting and quiet air-operated folding door, a choice between 33 or 37 Airfoam rubber cushioned seats with high or transit backs, grab rails or luggage racks, 21 inch wide aisle to speed loading and unloading, gas or Diesel power.



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From this full Flxible line, choose VISICOACHES [illegible] capacity, performance and style to fit your schedules [illegible] ardize with Flxible—for wider recognition, greater [illegible] simple maintenance, reduced parts investment, and [illegible]

Flxible

INTERCITY AND SUBURBAN COACHES

BUILT FOR MORE

DRIVERS HAVE LONG REQUESTED

- ★ Quick-shift, Syncromesh transmission
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- ★ Positive driver's area heating
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These are but a few of the new VISICOACH features that increase safety, reduce driving strain.

NEW MECHANICAL FEATU

- ★ Flxi-Lube springing
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- ★ Main center section wiring
- ★ More level drive line
- ★ Stronger engine cradle
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These are but a few of the new VISICOAC that heighten efficiency, add to economy.

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ACH features

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Many operators will want to see and know the VISICOACH on their own property. Because of orders already booked for quick delivery, it will be difficult to provide early demonstrations to very many customers. However, we are holding out a few VISICOACHES for demonstrations as they leave the production line. Request your experienced Flxible Representative to arrange an early demonstration for you. Write today for complete new VISICOACH specifications.

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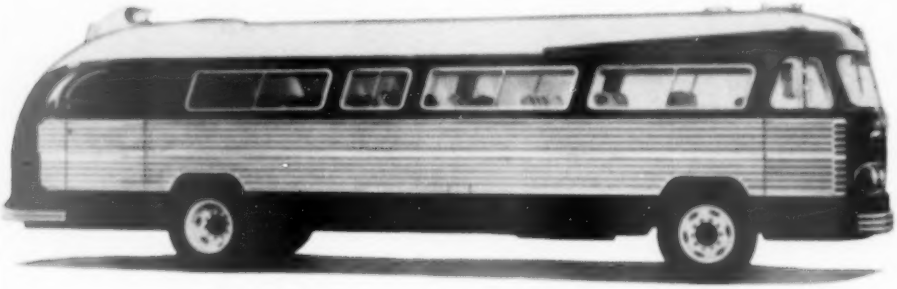
SASH FOR EVERY TYPE OF TRANSPORTATION—ON LAND, ON THE SEAS, IN THE AIR

VISICOACH VISIBILITY . . .

The new Flxible Visicoach features new Panoramic side windows. Edwards Sash enclosed. Increase in glass area —170% over old type windows! Better visibility . . . more daylight—and better ventilation, too.



PANORAMIC WINDOWS . . .

Regardless of the type of bus or service—city, suburban, interurban or cross country—there's an Edwards Sash to fit exactly the requirement. Streamlined construction . . . quick, easy glass replacement . . . less service, lower maintenance . . . rattle-free, weather-tight fit . . . finger-tip opening and closing, and maximum visibility are among the outstanding features of all Edwards Sash. Leading bus builders standardize on it. Profit-minded operators specify it. Write for complete information.

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EDWARDS SASH

NOW... a new sanitary fixture for women's rest rooms to increase sanitation and cut maintenance

The Sanistand

THE SANISTAND FIXTURE, developed by the American-Standard Institute of Plumbing Research, is an outstanding contribution to modern plumbing. It is designed to offer women the same convenience and sanitation the standing urinal does for men . . . to make wash rooms cleaner, neater and more pleasing to women patrons . . . and to reduce the cost and time of rest room maintenance.

This new urinal is constructed throughout of easily-cleaned, non-absorbent genuine vitreous china in a variety of attractive colors, and combines efficient flushing action with an extra large outlet to make it completely sanitary in operation and appearance. It is as easy to install as a water closet and can be placed in a regular wash room compartment. When used in modernization work, it usually can be installed where a water closet has been removed.

Test installations *prove* the popularity of Sanistand. Out of 5,029 questionnaires filled in by women who have used this new fixture, nearly 90% show prompt acceptance. Women praise Sanistand—say, "It's much more convenient and certainly more sanitary."

For more complete details, see your Heating and Plumbing Contractor, or send in the convenient coupon below. **American Radiator & Standard Sanitary Corporation**, Dept. BT-4, Pittsburgh 30, Pa.

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Please send me, without obligation, your new rest room folder, including complete information on the Sanistand.

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City ..... State .....

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On the country's toughest runs—where trucks and buses haul the heaviest loads, and brake linings get the most rugged test of their stopping ability and long life—the new J-M Brake Blocks *have more than proved that they can take it!*

There's good reason for this . . . because J-M Brake Blocks are the result of a new, scientifically balanced formulation, that was especially developed by the Johns-Manville Laboratory to give slow, even wear and to prevent costly scoring and checking of drum surfaces . . . that was designed to give the longest, most economical brake block life with the greatest amount of trouble-free service.

As proved on the Heat Check Analyzer—an exclusive J-M laboratory device for checking both block life and drum life . . . and as proved on thousands of runs, and hundreds of thousands of miles of the hardest road usage on all kinds of trucks and buses . . . J-M Brake Blocks will give you fewer pull-ins, better block and drum life, and better mileage at lower operating cost. Why not test a set of J-M Brake Blocks on your *next* pull-in!

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THE *FIRST* NAME IN ASBESTOS BRAKE LININGS

It takes something more than LUCK to keep down accidents on a line where close to a million bus miles are piled-up year after year. The Green Bay Wausau Bus Lines Inc. of Green Bay, Wisconsin, don't depend on "luck"—they're ***Markel Clients*** of long standing. The GB-W Buses have consistently shown, in spite of their rapid growth, a substantially reduced accident rate and, consequently, a reduction in premiums. Hence the great value they place on ***Markel's Safety Engineers*** who *study* specific conditions, furnish reports, provide safety instruction, posters, etc. In general, see to it that accidents are prevented before they happen. If you are not a ***Markel*** client it will pay you to find out what we can do for you. Write today.

MARKEL 4-POINT PLAN

1 A tailor-made program fitted to your individual needs that provides adequate coverage and complete protection.

2 Safety Engineering Service that eliminates causes of accidents.

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4 Lower insurance costs resulting from our specialized services.

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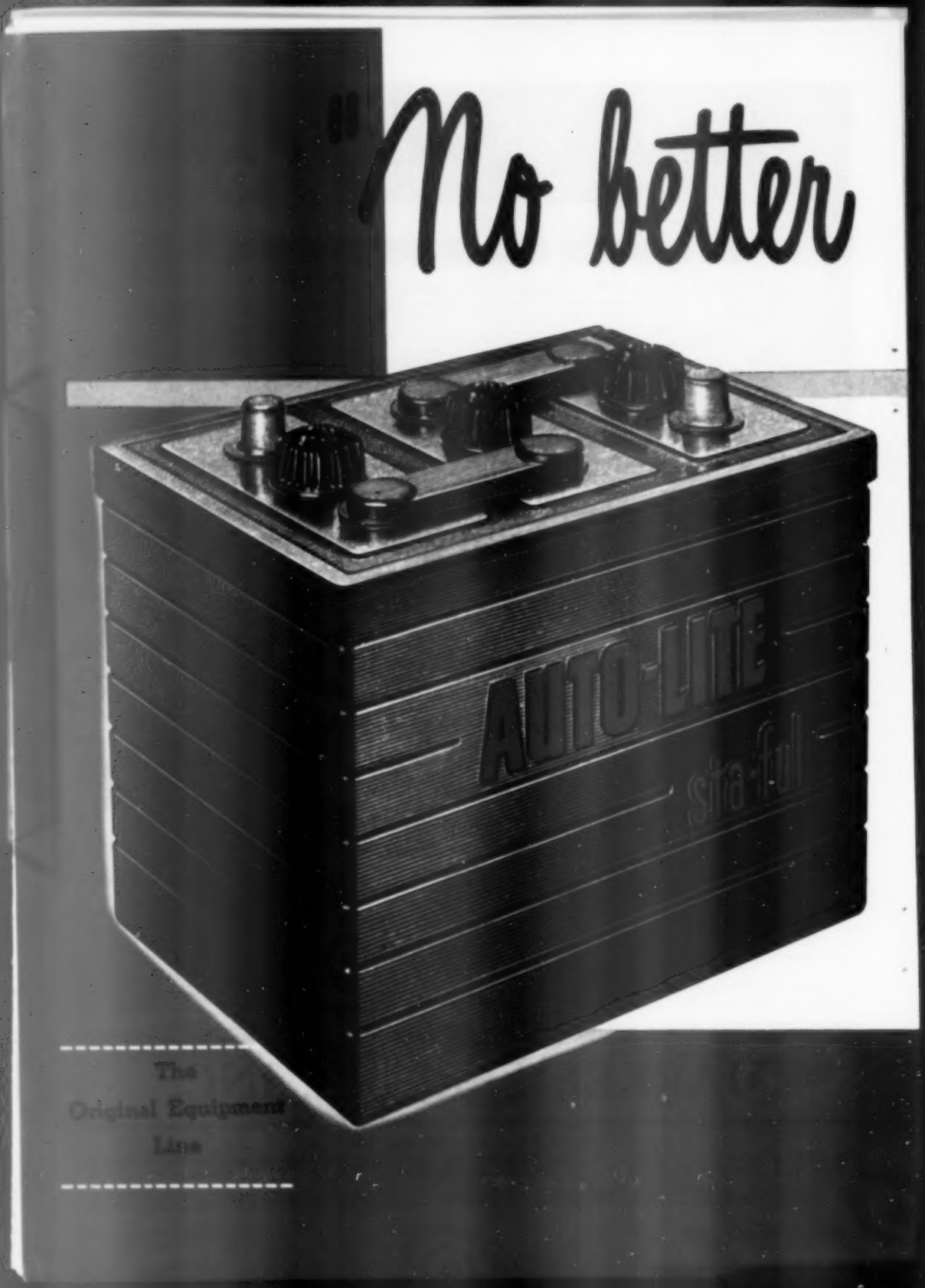
No better
AUTO-LITE
sta-ful
The
Original Equipment
Line

battery ever built"...

EARL BENNET, Driver
Yellow Cab Company
San Francisco, Calif.

L. A. SCHROYER, Supt. of Maintenance
Yellow Cab Company
San Francisco, Calif.

" 'Sta-ful is the battery a taxicab driver needs to keep on schedule. When you keep battery plates fully covered, you get rid of the biggest trouble-maker we had. It's the best battery I ever saw!' This statement of Earl Bennet shows how our drivers go for Sta-ful." L. A. Schroyer, Supt. of Maintenance, Yellow Cab Company, San Francisco, Calif.

HERE'S WHAT Sta-ful DOES FOR YOU

1 Needs water only 1/3 as often.

2 Helps keep plates fully covered for abundant starting power.

3 Reduces time and bother of battery servicing—lasts longer too.

4 Helps reduce operating costs by keeping fleets on schedule.

LOOK CLOSELY AT EVERY COACH WINDOW

If you see etched on the lower part the trade mark—

NATIONAL

—you can be assured of experienced craftsmanship by pioneers in the manufacture of extruded aluminum windows.

—to the riding public the *general* appearance may be similar to other windows, but every coach operator will realize that National windows have something extra, something de luxe.

—an exceptional record of service, exceptional weather-proofing and rattle-proofing, exceptional ease in raising or lowering. All working parts are outstanding—positive and safe locks, racks, weather stripping, etc.

National windows are called

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We make all types. Let us discuss specifications.

THE NATIONAL LOCK WASHER COMPANY

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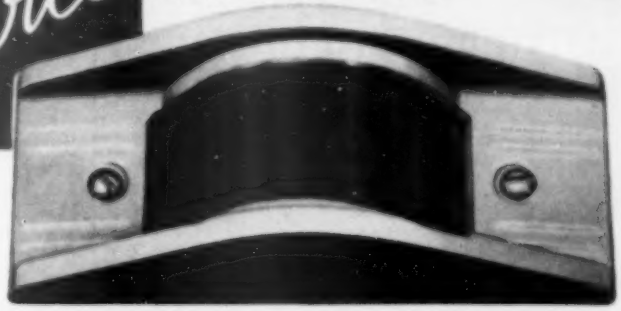
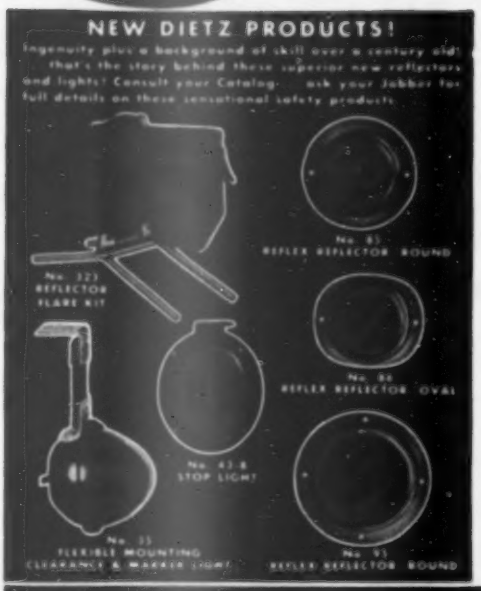
Style — Service

No. 80-C
STREAMLINED CLEARANCE & MARKER LIGHT
Curved base fits the contour of the vehicle body for full flush mounting. Sturdy lens housing in chrome or grey enamel. Red or amber lens.



No. 91 MARKER LIGHT
Cannot be crushed by side-swiping! Fully protected, yet the 3 C. P. bulb and Fresnel lens throw maximum light over an arc of 180°. Easily installed flush mounting type. Red or amber lens.

DIETZ CLEARANCE & MARKER LIGHTS



Here's a pair of lights designed to suit the contours of modern trucks, buses and trailers. But don't let the sleek lines of the DIETZ No. 91 Protected Marker Light fool you! Its smooth appearance masks really rugged armored construction! . . . it's a light to last the life of the vehicle! And the Streamlined Clearance and Marker Light No. 80-C features matchless appearance precisely in line with modern automotive trends. For style, for service . . . you're right when you choose DIETZ for your vehicles . . . THE LINE FOR ALL LIGHTS AND SAFETY ACCESSORIES! R. E. Dietz Company, 60 Laight Street, New York 13, N. Y.

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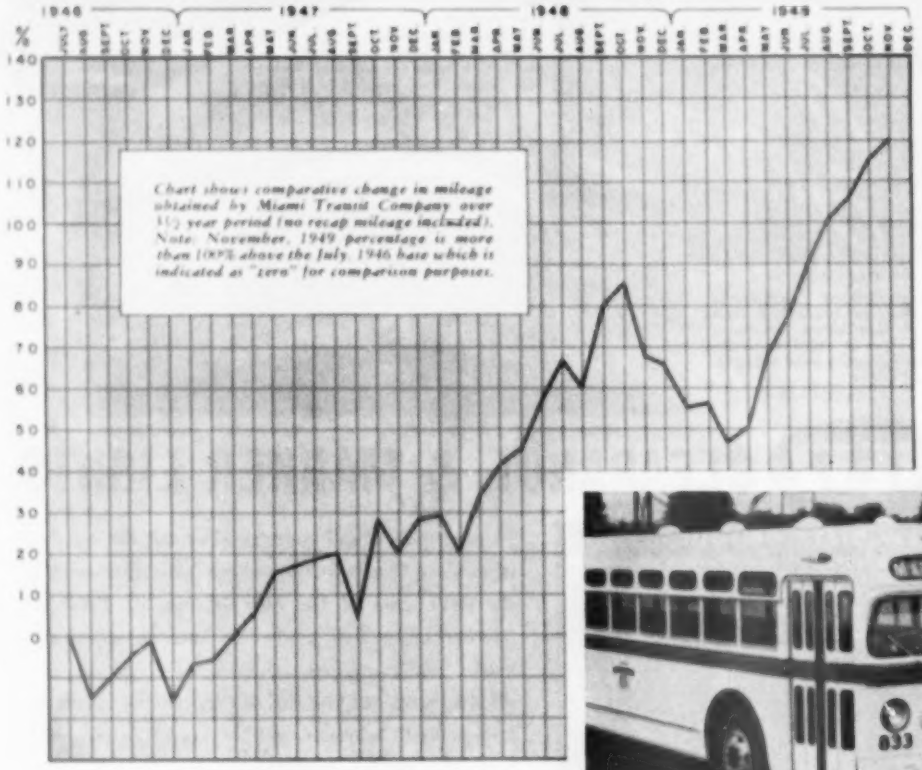
OVER A CENTURY OF [illegible] LIGHTING DIETZ

B.F.Goodrich

Bus Tires with nylon shock shields boost Miami Transit mileage by 100 per cent!



Miami Transit Coach — typical of vehicles in most city bus service. Typical, too, is hard wear on tires from "stop-start" operation and varied loads.

WHETHER your bus operation is small or large — whether your service is intercity, suburban or city — you save with BFG bus tires. Reason No. 1 is nylon shock shield, *exclusive with B.F.Goodrich.*

Nylon shock shields are built into all BFG bus tires with 8 or more plies. Built in between the tread rubber and the cord body, strong elastic nylon cord absorbs and distributes impact, shielding the cord body from shock.

Result — an extra, four-way saving that only B.F.Goodrich gives: (1) greater average mileage (2) greater bruise resistance (3) less danger of tread separation (4) more recappable tires. In addition, BFG bus tires have tread rubber which is specially made — scientifically compounded to resist the wear and tear of "stop-start" and the grueling, heat-packed highway miles.

With the new Super Highway bus tires, operators are reporting as much as 30% more mileage than with conventional bus tires . . . and at no additional air pressures. You can actually see the extra tread rubber in this new high-profile tire. *Take a look* at the Super Highway!

For real tire economy, for bonus miles — buy BFG! Get complete details now — write today to *The B.F. Goodrich Company, Akron, Ohio.*

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Reflecting 39 years of progress in Oil Control!

Sealed Power

MD-50 STEEL OIL RING

The only ring with the FULL-FLOW SPRING

Best—even in

BADLY TAPERED
and
OUT-OF-ROUND BORES

Sealed Power Corporation
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GET IT FROM YOUR JOBBER

Sealed Power Piston Rings

BEST IN NEW BUSES — BEST IN OLD BUSES

BEREA Bus Lines operate 752,000 White miles a year . . . handling heavy passenger traffic between Berea and Cleveland . . . and many special passenger and charter services . . . with a fleet of dependable, economical Whites.

THE White 1100's

For Long Range Planning that Pays Extra Revenue . . . today!

TODAY'S NEEDS for modernization in the transit industry call for the finest of motor coaches engineered for year-after-year dependability in the hardest kind of service. The new White 1100's continue a long-standing reputation which has won for White the name "Symbol of Service in the Bus Industry . . . Nationwide".

Millions of miles of efficient, economical service . . . years of White Dependability . . . sound engineering and rugged construction in every feature all assure *extra* revenue . . . today . . . when your long range plans include White 1100's.

THE WHITE MOTOR COMPANY • COACH DIVISION • CLEVELAND 1, OHIO

White BUSSES

The Symbol of Service in the Bus Industry . . . Nationwide

Highlights of last minute developments in the bus industry as we go to press

Top Topics

BUS TRANSPORTATION

April, 1950

THE PRIVATE VS. MUNICIPAL TRANSIT CONTROVERSY in New York City is out in the open at last. With the city now holding exclusive jurisdiction over all transit fares under a new state law, it is hoped that Mayor William O'Dwyer and the members of the city Board of Estimate will recognize the economic benefits to the city as a whole of continued profitable operation of the privately-owned transit companies and get together with these carriers with a view to solving the controversial fare question in the interests of the general public welfare.

WITH ITS NEW-FOUND GREAT POWER to "make or break" private transit enterprise, city officials are faced with grave responsibilities. The city now has the power to force private transit carriers to the wall and then gobble them up in its own deficit-ridden municipal system, or it can grant the cooperation and much needed increases in fares which would allow these carriers to perform their vital transportation function, pay the costs of operation, and still leave enough for a "reasonable return" on their investment. Because of the potential dangers in this situation as it affects the privately-owned carriers in New York city, and because of what it portends for transit in other cities of the country, the editors of Bus Transportation have devoted the entire space in this issue of Top Topics to a report on this vital question.

IN A NUTSHELL, the New York city transit situation boils down to this: There are eleven privately-owned bus carriers operating in New York city. The city owns and operates the subway system and a few bus lines in Manhattan, but the bulk of its surface operations are in Queens, Brooklyn and Staten Island. The city enjoys many tax exemption privileges and other benefits. For instance, with respect to amortization of equipment, Board of Transportation Chairman Sidney Bingham has been quoted as saying that "mass transit is an absolute necessity in the life of a city, and some means should be found to take part of the cost off the rider. We in New York believe that the capital costs are a fair charge against the city as a whole." The city operates on a 7-cent surface fare.

THE CITY FORCES PRIVATELY-OWNED LINES to operate on the same 7-cent fare, despite the fact that the private carriers enjoy no

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tax exemptions or other benefits, and despite the cold reality of mounting deficits on many of the lines. The franchise taxes generally paid by the private carriers run around five cents on the revenue dollar. The city holds the franchise power, and during the past year or more, has used this as a club to force the private carriers into line. Veiled threats of termination of franchise rights have not been uncommon during the past year.

THE GRIM "DOLLARS AND CENTS" REALITY of transit operation today has heretofore made very little impression on city hall. Operating costs are still mounting, labor costs have soared, and the 7-cent basic cash fare no longer bears any reasonable relationship to the economics of the situation for either the city-owned system or the private carriers. New York is the last of the cities of 500,000 or more population which still operates on a 7-cent fare, another fact which makes very little impression on City Hall.

THIRD AVENUE TRANSIT SYSTEM went into bankruptcy in 1949. PSC granted and the court followed with quick approval a fare increase to 8 cents in an effort to provide some financial relief for the bankrupt company, which furnishes bus and trolley service for 1,500,000 riders daily in Manhattan and the Bronx. Other private carriers immediately applied or signified their intention of applying to the PSC for increases to 8 cents, and the PSC indicated that it would approve all such applications. The city began swinging its franchise "club," however, and threatened the carriers with termination of their franchise if they imposed an 8 cent fare.

THE NEW YORK CITY OMNIBUS CORPORATION, largest private operator in Manhattan, took the bull by the horns and went to court. The case of Omnibus Corp. vs. the City of New York was placed before the Appellate Division of the State Supreme Court in March of this year. The issue was whether the PSC or the city had jurisdiction in regulating transit fares on private lines operating in New York city, and whether the city was overstepping its bounds in threatening to terminate franchise agreements if and when private carriers imposed an 8-cent fare.

NEW YORK CITY THEN SPONSORED A BILL in the state legislature which would divest the New York State Public Service Commission of authority to fix transit fares on privately-owned lines in New York city, and transfer this authority to the city. On Governor Dewey's recommendation, the bill was passed in the closing hours of the last hectic legislative session in late March.

IN SIGNING THE NEW LAW, Gov. Dewey qualified his position by stating that he had "grave doubts whether this bill is a final or satisfactory solution of the problem. It does, however, place the responsibility in one agency of government instead of two. It is to be hoped that the city will exercise this great power constructively."

COMMENTING ON THE NEW YORK CITY TRANSIT SITUATION, Gov. Dewey said:

"Widespread municipal operation of transportation in the city has cost millions in losses and taxes to the city and in taxes to the state and federal governments. Today, the city, with its bus operations and its subsidies, competes destructively with the privately-owned bus lines. The entire concept of municipal operation of transportation has been costly in the extreme without satisfactory results to the users of the bus lines. Yet the system exists and the dual authority merely furnishes an excuse for the confusion of the public and evasion of responsibility."

FOLLOWING CLOSE UPON THE PASSAGE OF THE NEW LAW, the Board of Estimate, on Mayor O'Dwyer's recommendation, created a 3-man committee to study applications for fare increases by privately-owned companies. But the Mayor pointed out that the city's opposition to the increases remained unchanged "at this moment." There are those among the private operators who believe that Mayor O'Dwyer, now that he has won his main fight on the jurisdictional question, will be inclined to approve an 8-cent fare for the private carriers, but this remains to be seen.

ON MARCH 31, TWO DAYS AFTER MAYOR O'DWYER gave indication of a changed viewpoint on private transit fare increases, and one day after the 3-man committee was named, ten of the 11 carriers had filed applications for increases with the Board of Estimate. Nine of the lines, including the Omnibus Corp., asked for an increase from 7 to 8 cents. Third Avenue Transit asked for an increase from 8 to 10 cents. Fifth Avenue Coach, which charges a 12-cent fare under a special franchise, was not an applicant. The Omnibus Corp. in its application asked, in addition, that the board determine what fare higher than 8 cents the company should have "to earn a reasonable return" on its investment.

REDUCTIONS OF FRANCHISE TAX was also asked for by three of the carriers. The rate generally in effect is five percent of gross receipts. The requests were for a reduction to three percent.

WORTHY OF MORE THAN PASSING INTEREST is the fact that the Mayor's own fact-finding board studying new wage demands of the TWU against the city-owned transit system, indicated that the city might have to go to a basic ten-cent fare on its surface operations if the union demands and other increased operating costs were to be met. The city has always paid lower wage rates than the private carriers.

THE PRIVATE OPERATORS are now hoping that Mayor O'Dwyer and the Board of Estimate will at last realize that, if the city-owned system cannot operate on less than a ten-cent fare, despite payment of lower wage rates, tax exemptions, and free from payment of equipment amortization charges, the private carriers, many of them faced with mounting deficits, cannot be expected to furnish adequate service and earn a reasonable return on a 7-cent fare and even less when transfers to the city system are involved.

NEW YORK'S RESPONSIBILITY:

private transit must get "fair deal" at city's hands

The issue of transit fare authority in New York City has now been settled. For good or bad, the city now has exclusive jurisdiction over fares on all privately-owned transit carriers operating within its boundaries, as well as over fares on the city-owned system.

Remaining to be settled is a still bigger issue: Will the city carry out its new responsibilities in the regulation of transit fares so that private transit enterprise can continue to perform its transportation function, at a fare level which will pay for the cost of operation, and still provide for a "reasonable return" on its investment?

Any policy adopted by the city which would jeopardize the continued operation of private transit carriers would unquestionably be detrimental to the best interests of the community as a whole.

In any objective appraisal of the merits of private transit vs. municipally-owned transit in New York City, the following important factors should be kept in mind:

The eleven private transit carriers pay huge taxes to the city, thereby providing substantial support to the local economy. The franchise and emergency taxes paid to New York City by these carriers in 1949 amounted to $3,583,943. The loss of these tax revenues as a result of city acquisition of the properties would, of course, have to be made up by the taxpayers, already burdened down by a record-breaking 1950 municipal budget.

New York City Omnibus and Fifth Avenue Motor Coach furnish examples of the benefits of ably managed private enterprise transit to the public, the employees, and to the city. Operating at sub-standard fares, management efficiencies on these properties have provided good service and improved equipment to the public; wages higher than those paid by the city-owned system; taxes in 1949 totaling $3,158,590, of which $1,662,148 went to the city; and reserve funds for the purchase of new equipment.

On top of all this, management was still able to show a small profit. To meet increasing costs and to give investors a fair return, the city should wisely grant both of these companies a fare increase and reductions in franchise taxes.

It is hoped that city officials will recognize the merits of all the fare increase applications now before them. Nine of the eleven carriers seek increases from 7 to 8 cents. The 8-cent fare, at least, will enable some of these carriers to wipe out existing deficits and enable them to cover daily operating costs. The ideal fare, however, would be ten cents, a fare which would more nearly relate to the economic realities of transit operation today.

THE EDITORS

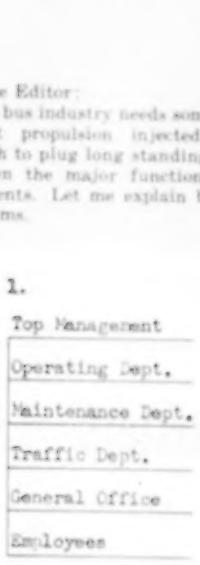
LETTERS TO THE EDITOR

Letters containing constructive criticisms or suggestions are invited. All must be signed. However, on request, names will be withheld upon publication.

To The Editor:

The bus industry needs some type of jet propulsion injected deep enough to plug long standing gaps between the major functional departments. Let me explain by two diagrams.

1.



2.

From a common sense viewpoint, we may analyze the two ideas of organization pictured above. Number One is a house built on one post. Each department operates separately from the other, trying to make itself the big important cog. In many instances one department is not aware of its overshadowing tactics that subjugate the final earning power of the entire organization. A company built on one post could easily topple, at least sway from side to side for many years without knowing it is ill to the core.

Number Two is a house built by careful planning. Top management should realize that each department does its job to hold the organizational structure together. Maintenance is basic and lays a good foundation. The outside bearing walls need to be strong for they support the staff departments and roof authority. Either wall, floor, foundation or roof does an important job. During any economic crisis, one wall may hold the frame work until the other damaged wall is repaired. If the floors and roof are strong, they will keep the bearing walls standing upright. Consequently, top management by and large acts as a final support to the entire structure. Let us not forget that no single department does the most important task. They all stand together as one unit functioning with several purposes—to build a good reputation in the community; to make jobs more secure for the human welfare; and to gain an honest profit as the end result.

The personnel department, which has a place in the second diagram, is seldom found except in the more progressive companies. Many people in management contend the cost is too high to install a personnel function. I say the company that hasn't accepted the idea that employees are human beings is disregarding an important asset on the final balance sheet.

Management could use the help of a well organized personnel department dealing with human relations. I am firmly convinced the rank-and-file lean toward an established human relations department for understanding of their problems. Through this department, we could tie together the gaps now existing between the industry's three main divisions, maintenance, operating, traffic.

VERNON SCAFF,
Continental Bus System,
Victoria, Texas.

Letter to the Editor:

Tell me now, am I hearing it right, sitting as I am way out here on the Pacific Coast? Do you mean, that after their many years of sniping at intercity buses entering the Big Town, the New York Port Authority Bus Terminal has found a reluctant tenant? (See page 93 of Feb. BT) Greyhound should be able to stand on something close to constitutional rights in the matter, and insist that as an intercity carrier they can make their own choice of terminal property and plans as long as the structure is within building codes. Not one word of protest have I read in the pages of BT from the operators involved in this municipally controlled terminal. Looks like the long-haul carriers will join the ranks of the city operators that get pushed around by well meant civic bodies, indifferent town councils (on fare increases), and traditionally slow PUC's. Is there no end to this tape worm of government regulation? Please keep us informed dear Editor, I'm sure all intercity bus men are interested in this step-child.

ANDREW R. HARRISON,
Los Angeles, Cal.

To the Editor:

We shall be pleased to have your comments on the matter of depreciation or wear and tear as used by the Income Tax Authorities of the U.S.A., Canada and any of the Colonies, of which you may know, for Bus Transportation Companies. Here in British Guiana, Income Tax Commissioners allow 25% sliding per annum which we are sure you will appreciate is not good enough and is probably outdated. We have been, and are still, asking for a better allowance, but we must have some reference and if possible statistics to put before them.

C. FIGUEIRA,
British Guiana.

(EDITOR'S NOTE: *If any United States bus operator presently burdened with a straight line ten percent depreciation rate wishes to commiserate with our British Guiana friend, he has our permission.*)

Providence presents special traffic problems which UER fights with eternal vigilance

NARROW STREETS like this multiply the operational headaches of United Electric Railways in Providence, but

. . . with the help of up-to-the-minute dispatching aids, these traffic bottlenecks are promptly found and broken.

How UER Turns Critics to Boosters

Complaints increased when United Electric Railways raised fares, cut some service, but a long-time policy of following through on each complaint turned critics to boosters—even upset plans of a reporter set to "blast" UER but found facts required praise instead.

by FRANK OTWELL

Associate Editor

"A SOFT ANSWER turneth away wrath: but grievous words stir up anger."

It is not likely that officials of the United Electric Railways in Providence went to the Scriptures for guidance in determining their public relations policy, but they won't deny that the first verse of the 15th chapter of Proverbs contains the gist of a public relations program that has worked wonderfully well for UER.

There's nothing like a fare increase and a curtailment of service, however much it is justified to bring out the grievous words and stir up some anger. That's what happened in Providence about six months ago after the UER increased its cash fare from 8 to 10 cents (along with its consecutive zone fares and weekly passes making an overall fare increase of about 23 per cent).

The UER serves Greater Providence, which means it serves 17 Rhode Island cities and towns with a combined population of more than 550,000. The area is highly industrialized. When industrial employment falls, riding declines on some lines and particularly off-peak daytime and evening riding. Under circumstances like those, sound transit practice dictates that service be tightened, non-revenue-producing lines be pared, and some vehicles and operators be used at a minimum.

The well-served residents of the Providence area who had ridden UER vehicles for nearly 25 years at the same fare (8 cents, established May 27, 1924), began to grumble, then to write letters to UER's General Manager, Harold Morris, and to W. R. Spencer, Executive Assistant, and finally to the editors of the Providence *Journal*.

The verbal and written complaints that came to UER offices at 24 Exchange Place were (and are) handled individually and immediately, even those that came unsigned or were obviously the handiwork of cranks. An account of exactly how those complaints are handled will be discussed later, for in their handling lies part of the solid success UER has built into its public relations.

Letters Reached Paper

Some complaints, naturally, were directed to the *Journal*. Some of those that bore names and addresses and some logic were printed in the "Letters to the Editor" department. Their number impressed the editors of the paper and one day a reporter walked into Mr. Morris' office at UER headquarters. He was armed with orders from his editor to "turn the spotlight on UER . . . dig into the bases for these complaints." He bore a sheaf of letters from disgruntled UER passengers. Some of the letters had

22 ROVING INSPECTORS display over UER bus and trolley bus lines to watch for trouble. Radio cars keep them in touch with the dispatcher.

signatures; some had been printed in the paper; others carried no names, no addresses—nothing but the craven hit-and-run mark of the natural-born crank who, disregarding facts and uninformed of his subject, lashes out in blind generalities.

No topside transit official these days welcomes with open arms a reporter who comes calling with blood in his eye and the avowed intention of "turning the spotlight" on passenger complaints. It took considerable forbearance for UER's top brass to sit still while the reporter recited the purpose of his visit—the unpleasant, signed accusations. . . People who said they had waited three—five—ten—twenty minutes on a wind-whipped street corner for a bus they thought should have been there sooner; the sharp-tongued driver who yielded to the human inclination to bark back; the commuter who cited his grievance, chapter and verse; the housewife who claimed she's missed a television show because she couldn't get a trolley bus at Olneyville Square just when she wanted it; the standees who contended they could have taken a walk around Exchange Place while up-bound river traffic kept the Point Street Bridge open. . . There were dozens of complaints like these.

The top officers of the UER heard the reporter out. Then they said in effect, "We understand your position. We know you want a story, and we know you'll get a story. We're not trying to tell you how to run your business, but please let us tell you how we run our business. We've been at it for a good many years and think we know a little about what we're doing."

The reporter listened, impressed but not convinced. Mr. Morris wrote a 12-page background report on the UER and some of the problems it and all other transit properties have in common these days. The reporter left and as reporters do, he took much of what he had heard with a grain of salt—figuring that since it had come from top management, it represented a biased, one-sided viewpoint.

He went to the office of Mr. Dwight Myers, Providence City Traffic Engineer. Here, certainly, he would find an unbiased opinion of UER. Mr. Myers, who has been City Traffic Engineer in Providence for one year, had worked in similar jobs in Boston and Johnstown, Pa. A traffic engineer gets a closer look at the operational end of a transit system than most others who are not directly associated with it. The reporter heard Mr. Myers' unbiased opinion of UER . . . "Providence has one of the finest transit systems in America. . . they are doing a whale of a job."

Story Changes Complexion

After further digging on his own, the reporter returned to his editor and told the boss the only kind of honest story that could be written about the UER would have to be a story explaining how the United Electric Railways has for many years been carrying on a continuing and unceasing program to give the people of Providence better service on good equipment at a fair price. Maybe, the reporter and his editor decided, the complaints had their bases in public misunderstanding and misinformation. Maybe, if people really KNEW more about the UER, knew something of what went on behind the scenes, not only would the complaints diminish, but there would be a greater degree of public understanding and cooperation so necessary to a transit system's efficient performance.

The reporter stuck some extra pencils in his pocket and went back to the UER, prepared to live with the job until he had it done. He was not long finding out that the UER has operated for many years in the fine Yankee tradition of pride in solvency and in giving value received.

For more than a month, the reporter studied the operation of UER. He rode in buses and trolley buses and in company service trucks

REPORT OF COMPLAINT

Received by: at A. M. P. M. on

Phone Letter Personal

Name of Complainant Address Phone Number

Nature of Complaint Line

Operator's Number Vehicle Number Exact Time Location

INFORMATION RECEIVED

When filled out, this complaint form gets top priority at UER.

and with mobile inspectors and checkers. He read the complaints that came in; he followed them through to their conclusion. He saw how much efficient care and attention is given to maintaining UER's vehicles. He saw how the margin between revenue and costs is narrowing. And when he had finished, he wrote a series of five stories for his paper—five stories whose worth to UER was incalculable.

Traffic Congestion Blamed

In his first article, appearing in the *Journal* on December 27 and headlined, "It's Everybody's Problem—" the reporter said this:

"The problems of the United Electric Railways are not simply those of a sedate public utility, operating on a franchise and policed by the government. They are community problems, created by the nature of our city and the people in it.

"UER's major headache is traffic congestion. A secondary pain in the transit organism is the total unreliability of the public. People change their riding habits each 24 hours and, with few exceptions, there is no way of anticipating what they will demand.

The company has much in common with a majority of (transit) carriers all across the country: It is caught between the postwar trends of rising costs and declining patronage."

Referring to the letters of complaint, he said: "The letters came from a heated minority of the 270,000 riders who daily travel 50,000 miles in trackless trolleys and buses. They are received by this newspaper, the UER itself and Thomas A. Kennelly, state public utilities administrator. Most of the correspondence complains about service and gives rise to clearcut questions:

- "Is the service getting better or worse and is it as good as it should be?
- "Is the company bleeding the public and making too much money?
- "When the UER was awarded higher fares in 1949 (May 2), then curtailed its mileage and laid off a number of drivers, was it being unreasonably hard on its patrons?
- "Does the UER make a sincere effort to meet its obligations to the Rhode Island public?"

One question was avoided, the current rate of fares. UER's average increase last May was less than asked and less than the postwar fare increases granted in 30 other large American cities.

Complaints analyzed by the reporter fell into four classes: From riders who were misinformed (largest group); complaints due to situations over which UER has no control (traffic congestion and changed riding habits of patrons); complaints from cranks (UER regards those as significant, the paper did not); and complaints with some basis in fact.

The first story cited a recent request for express bus service in the Eden Park and Auburn sections of suburban Cranston because patrons there did not want to compete for seats with passengers riding no farther than Columbus Square or Roger Williams Park, both points much nearer the Providence business section. UER investigated, decided to grant the request. In the peak period between 5 and 5:15 p.m., the line had been running 11 locals on Elmwood Ave. That was changed to five local and seven express runs, or 12 buses instead of 11. All were scheduled to start in the same 15-minute period.

UER's immediate reward was a scathing denunciation by riders who charged that 'the fares have gone up and you have cut the service in half,'" the story stated. "This reaction resulted from the fact that the headway had to be

Through ads and employee bulletins, UER reaches both the public and its own drivers.

altered to provide for two kinds of service. The Eden Park rider who formerly waited no more than a minute and a quarter now waits nearly three minutes for his express and the Columbus Square rider waits just as long for a local. But there are 12 buses where there were 11 and these two riders no longer compete for the same seat."

Although schedule changes on major lines are advertised in the papers, notice of other changes is posted in the vehicles on the lines effected. In the course of a year, about 3,500 changes in schedule are made.

How to Make Complaints

The reporter's second story dealt with the way complaints should be made (if they're justified at all). The theme of that article was: "Be Specific . . .General complaints that 'service is no good' can't be investigated."

"Whether you write, phone or call in person, a 'Report of Complaint' sheet will be filled out in triplicate. One copy will be placed in the file, one copy sent to the head of the department involved and the third placed on the desk of Harold G. Morris."

The second story also pointed out that to correct the condition complained of, UER must know the exact nature of the fault-finding, the line involved, the time of day, the operator's number, the vehicle number and the location. "With that information, the management can retrace the run involved and find out whether there was a genuine failure, who was responsible and what can be done about it," the story explained. "You will receive a telephone call, visit or letter from Morris in which the transit company will try to make you a satisfied customer." Several examples were cited of just how that practice—and it was a practice that has been in effect at UER for several years, not a new thing inspired by the newspaper series—has corrected certain defects in service on some lines.

In the third story in the series, it was explained why on some days, home-bound evening rush hour crowds are worse than they are on other days. Reason might be weather, traffic, tardy shoppers—the changing whim of the riding public.

On an average week-day evening, UER moves nearly 20,000 persons out of the downtown area between 5 and 6 p.m. It takes about 380 trips to do it; the average bus over this one-hour period will have about 53 passengers—44 seated and nine standing. Seven checkers roam the system, concentrating on the 20 checking points established in the city. Service is shifted, sometimes only slightly, to conform to the patterns set by riding habits found at those checkpoints.

Another phase of UER's system of controls not commonly known to its passengers, the constant watchfulness it maintains over road delays of all kinds, was discussed in the fourth *Journal* article. With its narrow streets and a 20-per cent increase in automotive traffic since the war, Providence has an unusually aggravating traffic problem which affects the operation of UER every day of the week. UER has set up its own elaborate system of keeping track of its vehicles and rushing assistance to them when they're delayed for whatever reason. Twenty-two inspectors, 19 in radio patrol cars, prowl UER routes and are constantly in touch with the dispatcher's office and the vehicles assigned to their responsibility. At 60 points on UER's 82.37 miles of trolley bus operation, there are trolley shoe contact boxes, mounted on overhead wires, which actuate pens on revolving tape recorders in the dispatcher's office.

In summing up his conclusions, the reporter had these answers to the four questions posed in the first of his series:

Service? It has been curtailed no more than patronage has declined.

Is UER making too much money? In the first 11 months of 1949, UER lost $357,472; 1948 deficit was $572,239.

Was UER being unreasonably hard on patrons when it laid off some drivers and curtailed some mileage after the May 2 fare increase? Of 60 large U. S. cities studied, 11 have escaped a fare increase; 18 have had increases smaller than UER; 30 have had bigger increases.

Does UER make a sincere effort to meet its obligations to the Rhode Island public? The reporter confessed that of all the persons he had questioned, high and low, he found no one who thought UER officials were negligent in their duty to the community.

The reporter went back to his typewriter and turned out his five articles, received with unabashed delight by officials of the United Electric Railways.

Complaints did not cease the moment the last of those stories hit the street. They were greatly reduced—especially those based on misinformation. UER officials say that despite a continuing program of driver training which emphasizes courtesy and includes the frequent issuance of "Helpful Reminders" bulletins, about one half of the complaints still received are prompted by unpleasant driver-passenger contacts. UER is anxious to reduce those to zero, of course, and all other complaints, now averaging two a day. There are presently 853 drivers employed. Each driver makes an average of 450 passenger contacts per day, or a total of 11,942,000 per month. For the month of January, 67 complaints were received from UER's three divisions.

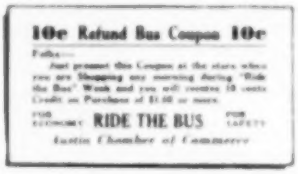
Advertising Budget Set Up

Some months before the reporter went to work on his five-article series, UER had apportioned $30,000 for a modest advertising program. It had done no advertising for many years. Out of that fund came ads telling how all traffic could be speeded over Providence streets if more people used UER's vehicles instead of their autos, ads telling how the people of Providence were being served by a transit system that had spent $5,000,000 since V-J Day to modernize its plant and its fleet, and ads emphasizing the economy of transit travel over any other kind.

But UER doesn't think it seemly to blow its own horn about its accomplishments. There was a moment of temptation, after the newspaper series appeared, to make use of those stories in brochure form for distribution to complainants—and to other transit companies. UER decided it would prefer not to be looked upon as trying to satisfy complaints by sending a copy of the favorable newspaper articles, instead, decided to continue its practice of careful examination of each complaint.

UER's policy will not change materially as a result of the publicity it has been given in its own home town. The soft answer will continue to be given. The goal and high purpose of UER will be to continue to keep the customers coming back for more, satisfied with the service and the price they're paying for it.

Special Refund Bus Coupons Helped President James Schmieder.



10c Refund Bus Coupon 10c

Folks—

Just present this Coupon at the store where you are Shopping any morning during "Ride the Bus" Week and you will receive 10 cents Credit on Purchase of $1.00 or more.

FOR ECONOMY **RIDE THE BUS** FOR SAFETY

Austin Chamber of Commerce

SELLING RIDES "SPAMTOWN" STYLE

by TRYGVE M. AGER

BUSINESSMEN of the thriving city of Austin in southern Minnesota recently came to the aid of the local bus company by putting on a "Ride-the-Bus" promotion campaign, and it worked out so well for both bus company and merchants that they're all determined to repeat the stunt at intervals in the future.

Austin was credited with a population of 18,307 in the 1940 census, but when the 1950 figures are in they will probably show Austin crowding the 30,000-mark.

The growth of the city has been steady, if not sensational, through the decade, and has corresponded pretty closely to that of the city's chief industry, the George A. Hormel & Co., meat packers and processors. Because of the popularity of one of the Hormel products you frequently hear Austin referred to as "Spamtown."

During the past three years alone 949 new homes were erected within the city limits, while other hundreds went up in the so-called outskirts. This has meant the opening of several new home development areas, and the Austin Bus Lines, Inc., has striven conscientiously to extend its services accordingly.

Today the firm operates 19 buses on half-hour schedules throughout the city and into the suburbs, some of which are still rather sparsely populated.

The fare, unchanged for 12 years, is ten cents a ride or three tokens for a quarter for adults, and five cents a ride for all children of school age, including junior college students.

But when James Schmieder, president of the bus company, closed his books for 1949 he found that his firm had been operating in the red for the second consecutive year.

He was confronted with the prospect of either boosting fares or curtailing service, and it was a cinch that neither of these moves would be received with enthusiasm by the public.

So, while still debating the thing in his own mind, Schmieder took his case to the Austin Chamber of Commerce, of which he is a member.

H. B. Lidstone, executive secretary, heard him out, and then called a special meeting of the Chamber's board of directors before whom Schmieder presented his case anew.

The result was a decision to assist in a campaign that might help Schmieder lick his problem without having to resort to either fare increases or service curtailments.

Disinclined to hike fares or cut service Austin (Minn.) Bus Lines Inc., with help from a cooperative Chamber of Commerce, endeavors to increase riding.

To plan and run the campaign the Chamber directors named a special "promotion" committee. It had seven members, including Secretary Lidstone; Axel Johnson, hardware merchant, who is president of the Chamber; Clarence Burgeson, managing editor of the Austin Daily Herald; Don Richardson, representing radio station KAUS; Mayor Merrill Rolfson, and two Hormel company executives: M. F. Dugan, treasurer, and Carson Morris, advertising manager.

The Chamber board of directors had met in the morning and the special committee, wasting no time, held its first meeting in the afternoon of the same day. It came up with a raft of ideas, some of which are being held in reserve for future use.

It was decided to put on a "Ride-the-Bus" campaign during the week of February 13 to 18, coinciding with the city's late-winter Dollar Day sale.

One objective, it was agreed, would be to encourage housewives to come downtown, by bus, to do their shopping in the mornings.

Another would be to discourage automobile drivers from giving lifts to people standing on street corners obviously waiting for the bus to come along.

To accomplish the first the committee got all local merchants to agree to a plan of redeeming for 10 cents in trade, on purchases of more than one dollar, the coupons which drivers were to hand all housewives boarding their buses between the hours of 9 a.m. and noon on the days of the campaign.

This amounted to refunding to bus riders the cost of their fares.

It had a two-way effect. It brought the bus company a lot of added business during the ordinarily slack morning hours, and it put customers in stores during hours when activity there also is customarily slow.

The merchants were delighted about this; so were the customers.

From all over town, according to Lidstone, came reports of women expressing pleasure at discovering how much easier it was to shop when displays were still tidy and complete, and when clerks had more time to devote to individual shoppers.

During the week more than 2,500 coupons handed out by bus drivers were redeemed by Austin merchants. And the merchants cheerfully bore the expense.

Lidstone and others believe the coupon ideal will become increasingly popular as housewives become better acquainted with it.

Auto Competition

Schmieder says the bus company has retained a considerable share of the morning business increase that developed during the campaign week. He attributes this to women finding out that it's smart to do their shopping during those hours.

To attain the other objective—that of discouraging automobile drivers from picking up bus passengers—has taken more doing, but there are real signs that it is making headway.

This phase of the campaign was carried on mainly through the newspaper and the radio station, and sought to bring Austin residents to an awareness that their "good deeds" in offering free lifts can sometimes work a hardship on a legitimate business enterprise.

Schmieder says he has received several letters from Austin people who admitted their eyes had been opened to this fact for the first time during the campaign.

"They never realized," Schmieder said, "that by giving lifts they were hurting our business, and they said they certainly didn't want a city without bus service.

"It's true we're the only bus line in town," he continued, "but ordinarily I figure we have about 500 competitors in Austin people who make a practice of giving free lifts to friends and neighbors. It's a practice which I figure has been depriving us of from 700 to 1,000 potential fares a day."

Schmieder told of one Austin man who had written him saying that he had altered his route for driving to work in order to avoid seeing the friends to whom he had been giving lifts.

Summing up the entire campaign week's efforts, Schmieder said:

"We did $100 a day more business that week, and the greatest increase was between the hours of 9 a.m. and noon."

To popularize bus riding on a more long-term basis the Chamber of Commerce committee has, at the Chamber's expense, printed and distributed thousands of bus schedules so that Austin residents might better know when and where they can catch a bus. These schedules were posted in stores, delivered to homes, and handed to bus riders.

An effort is also being made to get the city council to provide permanent signs at the more important downtown bus stops showing complete information on bus service available at those points.

Committee members felt that lack of adequate information regarding bus schedules had been an important factor in cutting down bus business.

Austin, like almost every other city of its size or larger, has a serious downtown automobile parking problem. City officials and businessmen alike look to the bus company to help alleviate it by making its own services more popular.

That's another reason why everybody from the mayor down was ready and willing to step in and give the bus company a boost.

But there's also the added reason that the Austin Bus Lines, Inc., has been providing good service down through the years at reasonable rates, and nobody—not even the folks who never ride a bus—want to see it pushed to the wall.

An expression of thanks from a grateful co. appeared in a local paper.

Detroit has found that the trolley bus, like the postman, can be called on to perform in snow or rain or heat or gloom of night. The Crosstown Line is one of the longest and busiest in the nation.

TROLLEY

Crosstown Line started operation December 15, 1949, with 60 trolley buses, now carries an average of 1,500,000 passengers per month. Two garages are being modernized

Trolley bus on Crosstown Line crosses a main street car line at Woodard and Warren Aves.

BUSES ARE ADDED TO DSR FLEET

On December 15, 1949, the City of Detroit Department of Street Railways started operating trolley buses on the Crosstown line, a line covering 28.47 round trip miles and one of the longest trolley bus lines in the country.

The line, only one in the motor city using trolley buses, serves many of the largest industrial plants and is operated with sixty 48-passenger trolley buses. The Crosstown line runs on Warren Avenue, which traverses the full breadth of the city from east to west. With the exception of a distance of five miles, the line is constructed with two-way overhead. Single overhead on two parallel streets, for outgoing and incoming service, is employed for this five-mile stretch because at that point the line passes through a one-way street area.

Another interesting feature of the line is that it crosses nine railroad tracks. Despite occasional delays caused by passing trains, to date Crosstown trolley buses have been able to keep reasonably well to schedule.

Because of its length and because it crosses many of the system's north-south street car and motor bus lines, Crosstown is a heavy transfer line. An average of 1,500,000 passengers are carried on DSR's trolley buses each month. One of the heaviest transfer points is where it intersects with the Grand River motor bus route. Grand River, which has been proposed for conversion to trolley bus service, covers approximately 20 round trip miles.

Overhead construction on the Crosstown line was started in May, 1949. Although December 15, 1949, was the official opening date, part of the line was in operation as early as October. Considerable fanfare marked the official opening. The mayor, city and street railway officials, business and industrial executives and labor leaders attended an elaborate luncheon which was part of the opening ceremony.

More Trolley Buses Due

DSR has additional plans for the improvement of its transit system. Among other improvements, the proposal has been made to change several other motor bus and streetcar lines to trolley bus.

Another improvement is the construction of a new trolley bus garage and storage yard at the Shoemaker terminal, which is located at the extreme easterly end of the Crosstown line. Construction has already started on the new garage building, which will be used for inspection and light repairs.

When completed, it will contain two service pits, two hydraulic hoists, a stock room, locker room and an office for maintenance men. Although 30 of DSR's 60 trolley buses are now being stored at Shoemaker, the terminal is being built to accommodate 100 vehicles.

The remainder of the fleet is being stored at the Wyoming terminal, located on the westerly section of the line. Wyoming has also been modernized for trolley bus maintenance. In addition to new entering and leaving ladders in the storage yard, the old street car barn has been renovated so that inspection and light repairs can be performed on the new vehicles. At both the Shoemaker and Wyoming terminals, trolley buses are stored outdoors all year.

Trolley buses are being considered for additional lines because officials of DSR believe that the Detroit system has several lines which, because of length and riding density, justify the use of this type of vehicle. Management states that it is well pleased with the new vehicles and reports indicate that the public echoes this sentiment.

JANUARY 27 — 1949

City, Port Authority and state officials break ground for the world's largest bus terminal, sprawling for a full block between 8th and 9th Aves., from 40th to 41st Sts.

JANUARY 28 — 1949

On the heels of demolition men, power shovels gobble up the rubble of obsolete tenements to make way for the four-level, $22,000,000 terminal, planned since 1939.

World's Largest Terminal Takes Shape

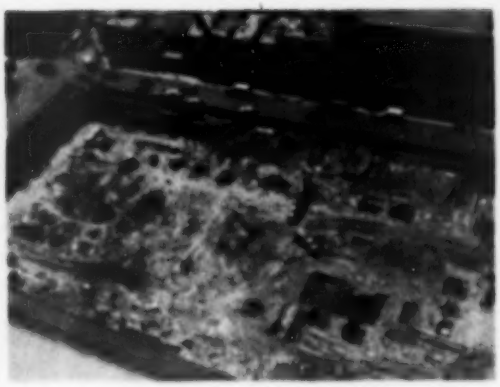
World Wide Photo

FEBRUARY 28 — 1950

The bright orange steel skeleton, when viewed from 8th Ave., shows curved facade, roof parking lot. Next level is suburban level, accommodating 570 departures hourly. Below that is suburban concourse; below that, main concourse with long-haul bus lines on basement level. IND Subway can be reached from 8th Ave. main concourse.

MARCH 17 — 1949

Not a bomber's-eye view of Berlin, but the site of a future bus terminal. Seventy-nine buildings were razed and 739 residential and commercial tenants relocated.



JULY 6 — 1949

Noise, dust and dynamite smoke drifted up from the job and into the windows of Bus Transportation, from which this shot was made. Concrete and steel soon took form.

Pictures record progress of Port of New York Authority Bus Terminal, centralized mid-Manhattan depot designed to ease congestion and handle over 2,000 schedules a day

World Telegram & Sun Photo

FEBRUARY — 1950

Helicopter view from 9th Ave. Buildings at lower left come down, McGraw-Hill Building, left, does not. 60,000 Jersey-bound bus riders a day can use the new terminal.

MARCH 13 — 1950

Ramps will connect new terminal with Lincoln Tunnel entrance, right background, and exit, left center. All facilities will be ready for use by the end of December.

THE COURT SPEAKS—

Race Segregation Upheld

by ALBERT WOODRUFF GRAY

THE RECENT sanction by the United States Court of Appeals of regulations for the segregation of passengers on interstate buses not only allays doubt and uncertainty in this regard but brings up to date the application of law principles laid down by the United States Supreme Court over 50 years ago.

A negro equipped with a round trip ticket for Florida boarded a bus at Syracuse, New York. When later she left Richmond, Virginia, she was the first passenger to enter the bus and took the second seat from the front. She occupied this seat until the bus arrived at South Hill, Virginia. There the driver and all the passengers except her left the bus for supper. When the driver returned he told the woman to change her seat to the rear of the bus. Refusing to do so she was taken from the bus by the police and a charge of disorderly conduct made against her.

Law Based on Custom

The bus driver acted on the following instruction or rule issued by the company to guide its employees:

"Where such has been the accepted usage, custom and tradition, it is suggested as far as practicable * * * that colored passengers be seated from the rear forward and white passengers from the front toward the rear. This rule is based on established usage induced by the general sentiment of the community and is designed not only to protect the comfort, safety and security of all the passengers but to preserve peace and good order and avoid undue discrimination."

In the trial of the suit the negro passenger subsequently brought against the bus company and in which she was unsuccessful, the lower court said in its charge to the jury:

"If you believe that those rules and regulations adopted by the bus company are reasonable and fair in their application and that under these rules substantially equal facilities are extended members of both the white and colored races, then the rules and regulations are reasonable."

She appealed from the decision. In its affirmance of the judgment of the lower court the United States Court of Appeals said of this charge, in relation to the seating of passengers, that while a regulation involving the repeated shifting of seats by colored passengers would amount to discriminatory treatment and be a deprivation of their just rights, the adoption of reasonable regulations of this character by an interstate carrier did not violate the law as it had been laid down by the United States Supreme Court.

Shortly before this decision was made justifying separate seating accommodations for the white and negro races when they were "The accepted usage, custom and tradition," another suit of the same character was tried in the federal court in Virginia.

Carrier Not Liable

There a negro clergyman had purchased a round trip ticket from Roanoke, Virginia, to Salisbury, North Carolina. When he was asked by the bus driver to move from a seat in the front of the bus to one in the rear he protested and ultimately left the bus.

The driver here had substantially the same directions as those issued to the operator of the Richmond bus. In holding that no liability rested on the bus company for the enforcement of seating rules of this character that court said:

"The Supreme Court has consistently held that there is no infraction of the Fourteenth Amendment by a requirement for separate accommodations for white and colored persons on public carriers so long as the accommodations are equal."

Early Precedent

At this trial the testimony of officers of bus companies operating in southern states and of public officials in charge of motor carriers was that the separation of white and negro passengers on southern bus routes was for the benefit of both races; that the indiscriminate seating of white and negro passengers would increase the arguments, altercations and disturbances among the passengers and lead to annoyance, discomfort and possibly danger to both races.

"No matter how much we may deplore it," said the trial court in its decision of this case, "the fact remains that racial prejudices and antagonisms do exist and that they are the cource of many unhappy episodes of violence between members of the white and colored races."

The law that was followed by the courts in these cases of the segregation of white and negro passengers was laid down in a famous case in 1877 by the United States Supreme Court.

On Interstate Carriers

The Constitution of Louisiana at that time provided that, "All persons shall enjoy equal rights and privileges upon any conveyance of a public character."

In 1869 a statute was passed in that state that while public carriers had the right to refuse or expel passengers they could make "no discrimination on account of race or color."

Famous 1877 Case

In the summer of 1872 Josephine De Cuir, who was the owner of a plantation, a negro and a former resident of Paris, France, engaged passage on a steamboat sailing from New Orleans to Vicksburg, Mississippi. On this vessel the accommodations for negroes were separate from those for the white race. Mrs. De Cuir demanded admission to the section allocated to white passengers and was refused. She sued the owner of the vessel, claiming that under this statute she had the right to occupy the quarters assigned to passengers of the white race.

From a decision of the Louisiana court sustaining her contention the owner of the vessel appealed to the Supreme Court of the United States. By that famous decision which held the Louisiana statute unconstitutional as an interference with interstate commerce was established this principle of law that sanctions separate accommodations for white and negro passengers which not only governed these recent decisions but is as much the law today as it was when it was pronounced by the Supreme Court 73 years ago.

"No carrier of passengers," asserted that court, "can conduct his business with satisfaction to himself or comfort to those employing him if on one side of a state line his passengers, both white and colored, must be permitted to occupy the same cabin and on the other side be kept separate. Substantial equality of right is the law of the state and of the United States, but equality does not mean identity, as in the nature of things identity in the accommodations afforded passengers, whether white or colored, is impossible. The laws of the United States do not require the master of a steamer to put the passengers in the same apartment who would be repulsive or disagreeable to each other."

Twenty years later, another Louisiana law required railroads to provide separate accommodations for white and for colored races and that no person be permitted to occupy seats other than those assigned to them by virtue of the race to which they belonged.

Voluntary Consent

This law the Supreme Court held valid and constitutional. "If the two races are to meet on terms of social equality it must be the result of natural affinities and mutual appreciation of each other's merits and the voluntary consent of individuals. This end can neither be accomplished nor promoted by laws which conflict with the general sentiment of the community upon whom they are designed to operate. When the government, therefore, has secured to each of its citizens equal rights before the law and equal opportunities for improvement and progress, it has accomplished the end for which it was organized and performed all the functions respecting social advantages with which it is endowed. Legislation is powerless to eradicate racial instincts or to abolish distinctions based upon physicial difference and the attempt to do so can only result in accentuating the difficulties of the present situation."

Thus the segregation of white and of colored races has been consistently held constitutional and bus regulations to that end are under no prohibition of the supreme law of the country. The ban on such regulations must come if at all by Congressional action.

Power to Regulate

Said the federal court in Virginia, "It must be repeatedly and steadily borne in mind that the power to regulate interstate commerce is vested in Congress. The fact remains that neither Congress nor any agency accredited by it has sought to impose any regulation dealing with the separation of passengers in interstate commerce. By this refusal to nullify the practices and regulations of these carriers in respect to the separation of passengers, Congress has by the strongest implication given its approval of them."

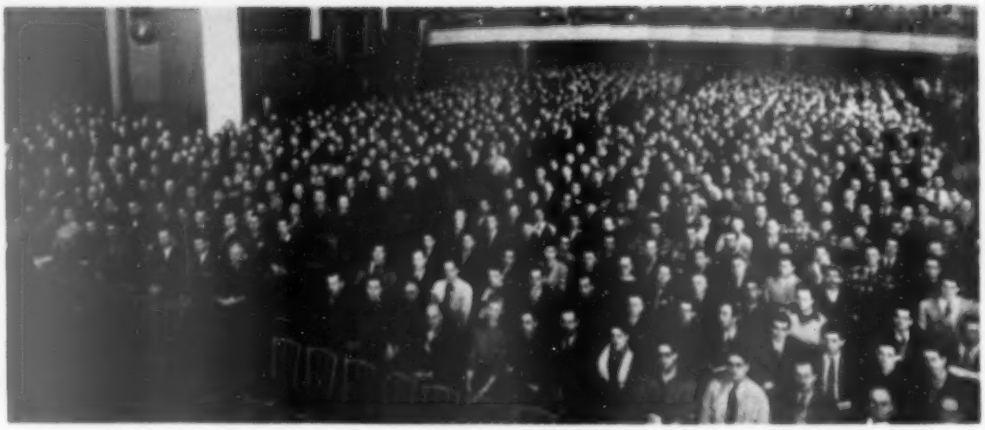
REFERENCES

Day v. Atlantic Greyhound Corp., 171 F. 2d 59; Dec. 7, 1948.

Simmons v. Atlantic Greyhound Corp., 75 Fed. Suppl. 166; Dec. 30, 1947.

Pridgen v. Carolina Coach Co., 229 N. C. 49, 47 S.E. 2nd 612; May 5, 1948.

Hall v. De Cuir, 95 U.S. 485, Rev'g.



This crowd at the first New York City session in Manhattan Center is vivid proof that . . .

MACK DIESEL SCHOOL ATTRACTS THOUSANDS

Interest in the diesel was expressed by huge turnouts wherever Mack announced schools

WHAT MAKES the diesel tick? That there is an unusually great amount of interest in the subject, the Mack Manufacturing Corporation has ample evidence. When Mack announced plans in February to conduct a free course on diesel engines in Albany, Boston and New York City, obviously it expected a moderately favorable response. Company officials were flabbergasted at the overwhelming interest in the subject when more than 5,000 men signed up for the course in the three cities. These men represented their companies as mechanics, executives or owners.

In New York City, for instance, the expected response was in the neighborhood of a few hundred and

Question and answer session follows each lecture

QUESTIONS brought to speaker are directed for answer to . . .

. . . PANEL OF EXPERTS, answers queries on all phases of diesel operations and engineering. 19 schools are in operation, 11 more proposed.

it was originally intended that the course would be given at the Mack shops in Long Island City. This plan had to be changed almost immediately, for in the first few days more than 2,500 applications had poured in. The much larger Manhattan Center was substituted as the meeting place and by the time the first lecture was held, more than 3,500 were in attendance. The second lecture in the series showed no appreciable lessening in interest. More than 3,200 attended this session and a number of new registrations were accepted.

The course was designed to correct many erroneous concepts on the diesel engine and answer many questions in the minds of mechanics and operators.

Chief concern on the part of many operators was the lack of experienced diesel mechanics. At the same time, many experienced gasoline engine mechanics believe that the diesel is complicated and difficult to maintain. Furthermore, their gasoline engine experience would be of little value should they decide to learn diesel maintenance.

Lectures by Experts

The aim of the course was to correct erroneous impressions and show that with a relatively small amount of training, a competent gasoline engine mechanic can become an equally competent diesel mechanic. If the lectures so far are a criterion, the Mack people will succeed in their purpose.

The course is divided into ten two-hour sessions over a ten-week period. Each session is divided into two lectures with training aids in the form of slides on a screen behind the lecturn. Each lecture is followed by a question and answer period.

The lectures are given by men who are experts on the topic under discussion. In attendance also is a panel of Mack diesel experts to answer questions that arise during the question and answer period. These questions are selected from those submitted on question forms made available to the students. Hundreds of questions were submitted at the first session. Some were answered immediately; others were deferred for discussion at subsequent meetings where they more properly would fit. Obviously, all of the questions cannot be answered, but a screening board makes selection based on the expected interest in the particular question.

The first lectures were titled: "History of the Diesel and Its Economics," and "Taking the Mystery Out of the Diesel." The second series started with: "How the Diesel Works," and was followed by the "Diesel Fuel System."

Subsequent lectures will deal with injection systems, timing injection, fuel, lubrication, electrical systems, trouble shooting and analysis, unit overhaul, maintenance practices, driving practices, and will end with "Logical Diesel Users."

At the start of the second session, copies of the lectures given at the first session were distributed, together with a folder. This practice will continue throughout the series, so that at the end, a complete file covering the course will be in the possession of each student. After the course is completed, a complete file of questions and answers compiled during the meetings, together with a certificate of attendance, will be mailed to each student.

An announcement was made at the second session, that those interested in actual shop practice at the termination of the course, would be admitted to the Mack shops for this purpose. This, also, would be gratis.

For those in other localities, the course will be held in approximately sixty cities throughout the country.

← After first session, transcripts of lectures, and course outline are distributed to all students.

WAGE SCALES

in the

TRANSIT INDUSTRY

The following survey of union wage scales, covering the year ending Oct. 1, 1949, was prepared by the Bureau of Labor Statistics and appeared in a recent issue of the Bureau's "Labor Review." The survey covered 75 cities in this country.

WAGE SCALES OF union conductors, motormen, and bus drivers averaged $1.44 an hour on October 1, 1949, according to the Bureau of Labor Statistics annual survey of union scales of local transit operating employees.

Union agreements generally specified higher scales for operators of one-man cars than for those of two-man cars in the 12 cities having both types in operation. Milwaukee and San Francisco were the only cities in which the minimum starting scale was the same for both types of cars. In other cities, the differentials ranged from 5 cents an hour in Baltimore to 13 cents in Los Angeles; the most common differential was 10 cents an hour, occurring in Chicago, Cleveland, Detroit and Minneapolis.

Considering type of conveyance, the average scale levels of local transit operating workers was approximately the same for all types, regardless of the number of types operated in each city. The $1.44 scale level for operators of one-man cars and buses was 1 cent above that of motormen and conductors on two-man cars and 3 cents above elevated and subway operators.

In most union agreements covering local transit operating employees, hourly pay scales are based on length of experience. An entrance or starting rate, one or more intermediate rates, and a maximum or top rate are usually provided. Although the period of time intervening between rate steps varies from city to city, the entrance rate is most frequently paid for the first 3 or 6 months and the intermediate rate for the remainder of the first year of employment.

Entrance rates for one-man car and bus operators varied from a low of 90 cents in Miami to a high of $1.58 an hour in Chicago. The lowest starting rate reported for two-man surface car operators ($1.20) was in Baltimore and the highest ($1.51) in San Francisco.

The maximum or top scale for buses and one-man surface cars ranged from $1.10 in Savannah to $1.60 an hour in Chicago and Seattle and double-deck buses in New York City. For two-man surface cars, the range was from $1.29 in New Orleans to $1.506 in San Francisco.

A standard workweek, averaging 43.3 hours, was reported in effect on October 1, 1949, for four-fifths of the workers studied. Standard workweeks of 40 hours were in effect for nearly two-fifths of the workers, and a fifth were on a 48-hour weekly schedule.

Trend of Union Wage Scales

Contract negotiations effective between October 1, 1948, and October 1, 1949, raised the level of union scales for local transit workers by 4 percent, or 6 cents an hour. This was the smallest increase registered after VJ-day and was substantially below gains achieved in other postwar years. Scale revisions resulted in upward adjustments of 17 percent between July 1, 1945, and July 1, 1946, 13 percent between July 1, 1946, and October 1, 1947, and 10 percent between October 1, 1947, and October 1, 1948. Increases in levels of union scales after the end of World War II account for three-fourths of the total advance in the past 10 years. On October 1, 1949, the level was 84.7 percent above that of June 1, 1939.

TABLE 1

Indexes of hourly wage rate of local transit operating employees, 1929-49 (June 1, 1939 = 100)

Date	Index	Date	Index
1929 May 15	91.8	1939 June 1	100.1
1930 May 15	92.5	1941 June 1	104.8
1931 May 15	93.2	1942 July 1	112.5
1932 May 15	90.8	1943 July 1	119.8
1933 May 15	87.1	1944 July 1	120.8
1934 May 15	89.0	1945 July 1	122.1
1935 May 15	91.4	1946 July 1	143.1
1936 May 15	92.3	1947 Oct. 1	161.5
1937 May 15	98.4	1948 Oct. 1	177.7
1938 June 1	99.2	1949 Oct. 1	184.7
1939 June 1	100.0		

Index series designed to show wage rate trends over a period of years. Year-to-year changes in union scales are based on comparable quotations for each classification weighted by the respective membership for the current year.

*Information not available.

Nearly three-fourths of all unionized local transit operating workers studied had upward adjustments in their pay scale from October 1, 1948, to October 1, 1949. Generally the increases were on a cents-per-hour basis and ranged from under 4 cents to over 14 cents. Nearly a fifth of the workers received increases of 4 to 6 cents an hour; an eighth, 8 to 10 cents; and a seventh, 10 to 12 cents.

Pay scales for three of every four operators of one-man cars and buses were increased between October 1, 1948, and October 1, 1949. Most of these workers had increases ranging from 2 to 10 percent. On a cents-per-hour basis, the largest groups of workers had advances of 2, 5, and 10 cents. Practically all (96 percent) motormen and conductors of two-man cars received rate advances during this period. About half of these workers had rate increases of 5 cents an hour. Union scales for nearly three-fourths of all elevated and subway operators remained unchanged since the previous study. For those who received raises, the increase most frequently reported was 5 cents an hour.

Over 80 percent of the workers studied had hourly scales of $1.35 to $1.60 and less than 7 percent had scales below $1.25. Slightly less than a fourth of the one-man car and bus operators and almost half of the two-man car operators received between $1.45 and $1.50. Nearly a fourth of the elevated and subway operators had scales varying from $1.55 to $1.60 an hour; about one-sixth had rates of less than $1.20.

The rate for "owl" car and bus operators in Detroit ($1.66) was again the highest individual scale reported in the study.

The extent of postwar wage adjustments is evident from a comparison of the October 1, 1949, union scales of local transit workers with those in effect 4 years earlier. On July 1, 1945, three-fourths of all workers had wage scales under $1, whereas in 1949 approximately the same proportion had scales ranging from $1.35 to $1.60 an hour.

City and Regional Rate Differentials

Average wage scale levels varied widely among the cities studied—from $1.10 an hour in Savannah to $1.60 in Seattle. In 13 cities, the level averaged $1.50 or more an hour; in 37, the hourly level ranged from $1.20 to $1.40. Miami and Oklahoma City were the only other cities with scale levels averaging less than $1.15 an hour.

Although three of every four local transit workers received a rate increase during the year, wage scales in 18 of the 75 cities surveyed remained unchanged between October 1, 1948, and October 1, 1949. Increases in the other 57 cities varied from 2 cents an hour in Phoenix, San Antonio, and San Francisco, to 20 cents in Cincinnati. Raises of 10 cents were granted in 11 of these cities and 5 cents in 10 others.

Although the three largest sized city groups showed little variation in average wage scales, the average for the group of cities having 1,000,000 or more population was about 2 cents below the next smaller sized group, but about 2 cents above the 250,000 to 500,000 population group. The hourly wage levels by city size are as follows:

Cities with population of—	Average hourly scale
1,000,000 and over	$1.447
500,000 to 1,000,000	1.472
250,000 to 500,000	1.429
100,000 to 250,000	1.364
40,000 to 100,000	1.246

The level of scales in Phoenix ($1.45), included in the smallest size population group studied, was higher than New York or Philadelphia and the same as Los Angeles. Three cities in the third largest size group, Seattle ($1.60), Portland, Ore., and Cincinnati ($1.55) had levels that exceeded those of the cities with a million or more population.

Computed on a regional basis, average pay scales for all classifications of local transit operating employees varied from $1.27 in the Southwest region to $1.50 in the New England region. The Pacific and Great Lakes regions, with average levels slightly below that of New England, were the only other regions to exceed the national average. Regional averages for one-man car and bus operators followed a similar pattern. For two-man car operators, the Great Lakes region was highest and the Southwest lowest.

Standard Workweek

Although four of every five local transit workers were reported as having a standard workweek on October 1, 1949, no weekly hours were reported for workers in over two-fifths of the cities studied. In cities where regular schedules were in effect, the typical week for one- and two-man-car operators and bus drivers consisted of 40 hours; for elevated and subway operators, a 48-hour standard workweek was most prevalent on October 1, 1949.

In most cities, daily overtime was paid after 8 or 8½ hours. In a few cities, such as Charleston (S. C.) and Charlotte (N. C.) daily overtime was not paid until 9½ hours had been worked. One-man car and bus drivers in Norfolk and bus drivers in Savannah were paid overtime only after regular scheduled runs.

TABLE 2

Average union hourly wage rates of local transit operating employees, by region,[1] Oct. 1, 1949

Occupation	United States	New England	Middle Atlantic	Border States	Southeast	Great Lakes	Middle West	Southwest	Mountain	Pacific
All local transit operating employees	$1.44	$1.50	$1.41	$1.43	$1.28	$1.48	$1.37	$1.27	$1.33	$1.49
Operators of one-man cars and busses	1.44	1.51	1.43	1.43	1.28	1.50	1.37	1.27	1.33	1.50
Motormen and conductors of two-man cars	1.47	.....	1.35	1.37	1.30	1.46	.....	1.29	.....	1.45
Elevated and subway operators	1.41	1.45	1.39	.....	.....	1.47	.....	.....	.....	.....

[1] The regions used in this study include: New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Middle Atlantic—New Jersey, New York, and Pennsylvania; Border States—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; Southeast—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; Great Lakes—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; Middle West—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; Southwest—Arkansas, Louisiana, Oklahoma, and Texas; Mountain—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; Pacific—California, Nevada, Oregon, and Washington.

THE TRENTON TRANSIT STORY OR WHAT TO DO WHEN THE RECEIVERS COME

by DOUGLAS W. CRAY

News Editor

FLAT ON ITS BACK seventeen years ago, Trenton (N. J.) Transit has slowly but steadily regained its strength. Today it stands ready to come out of receivership. This in itself is an achievement. Viewed broadly, it represents a triumphant bright spot in a generally gloomy national transit picture.

Asked recently to put his finger on the formula for recovery, T. E. Peacock, general manager, replied: "There's no single formula. We've switched to buses, reorganized, cut costs and hoped for the best." Between the lines of this modest summation lies our story, if not a formula.

Trenton Transit Co. was placed in receivership by Court of Chancery of New Jersey on Sept. 22, 1933. Rankin Johnson, president, and Edward W. Lee were appointed receivers. The latter represented the City of Trenton.

Here is what they had on their hands:

(1) A national depression;

(2) A cluttered corporate structure;

(3) Antiquated equipment;

(4) A declining revenue curve;

a disagreeable combination which added up to a staggering indebtedness of over $5,000,000.

Early History

Leaving aside the depression itself, let's take a quick look at these factors:

Trenton Transit Co. came into being Nov. 23, 1929. Formerly the Trenton and Mercer County Traction Corporation, it consisted of Trenton Street Railway Co.; Trenton, Pennington and Hopewell Street Railway Co.; Mercer County Traction Co.; Trenton, Hamilton & Ewing Traction Co. These underlying companies leased all their street railway lines and other property to Trenton and Mercer County Traction Corporation for 999 years on Oct. 1, 1910. Stockholders of the latter corporation organized the Central Transportation Co. (Apr. 27, 1923) to operate buses. It was merged into Trenton and Mercer County Traction Corp. on Nov. 1, 1929.

Revenues Decline

This aggregation supplied transit service in Trenton and adjacent suburbs. City service was all street car, suburban service a mixture of bus and street car. Neither was very profitable. Consolidated gross receipts began sinking in 1927 and continued downward at an accelerated rate to the year of receivership. For example, in 1926 gross receipts were $1,832,007. The figure dropped to $1,494,081 in 1930. By 1933 it was down to about $1,040,000. Increased use of private automobiles and the depression were given as explanation for the decline.

To make matters worse, the entire system had amassed an outstanding bonded indebtedness of $3,552,000. The figure detailed as follows:

- Trenton Passenger Railway Co.,* Consolidated, 6's of 1961 ..... $ 840,000
- Trenton Street Railway Co., Consolidated, 5's and 4's of 1968 1,159,000
- Trenton Street Railway Co., General 6's of 1941 500,000
- Trenton, Pennington & Hopewell Street Ry. Co., 5's of 1943 231,000
- Mercer County Traction Co., 5's of 1944 292,000
- Trenton, Hamilton & Ewing Traction Co., 5's of 1955 500,000

*Dating back to 1891 and consolidation of Trenton Horse Railroad, City Railway, Hamilton Township Street Railway Co. and South Clinton Ave. and Broad St. Ry.

Leases to Trenton Transit Co. required the company to pay interest on all outstanding bonds. In the three years prior to receivership no interest was paid upon the last four series of bonds (above). Funds were simply not available.

Coupled with this bonded debt were such matters as back taxes, rent to the lessor companies, etc. Again because of lack of funds the company fell behind in payment of taxes due the City of Trenton and surrounding communities. By the time the receivers came, the tax figure, including interest, amounted to $461,862. Unpaid rent claims totaled $1,562,063. With other obligations the total indebtedness topped $5,000,000.

That was the picture in Trenton on Sept. 22, 1933. An idea of how much has been accomplished since then is the latest figure on bonded debt. As of Dec. 31, 1949, it was $277,000. The difference has not been whistled away either. A drastic rearrangement of the foundation and furniture has been undertaken.

Not long after the company was placed in receivership, Congress enacted several amendments to the National Bankruptcy Act. One of them, Section 77B, came as a breath of fresh air to belabored Trenton Transit Co. Procedure for corporate reorganization was established. Quick to respond were the Messrs. Johnson and Lee, ably counseled by George Gildea, attorney for the company. Eventually the Court, the City of Trenton, the Public Utility Commissioners and the bondholders

all had a part in the reorganization plan that was evolved.

Briefly, the plan called for:

- The sale of Receivers' Certificates to raise money to pay the back taxes of the company;
- The substitution of buses for street railway cars after the taxes were paid;
- The reorganization of the four lessor companies and the retirement of $1,641,000 of bonds then in default;
- The cancellation of indebtedness due from Trenton Transit Co. to its lessors for unpaid rent and interest thereon in the sum of $1,800,000;
- Consolidation of the four lessor companies into one company.

There was no question about where to dig in. Back taxes were prior lien to bonds. First order of business was the issuance of Receivers' Certificates to raise money to pay the tax debt. Inasmuch as these Ceritficates, when issued, became first liens on the entire system they were marketable despite the depression. On July 10, 1934, six per cent Receivers' Certificates in the amount of $288,000 were issued. The Certificates matured at $3,000 a month for 96 months.

Conversion to Buses

With back taxes out of the way, the receivers turned their attention to the antiquated equipment. In a letter to bondholders dated Jan. 15, 1934, it was stated: "Assurance has been given that when the taxes due the City of Trenton have been paid, consent will be given to the substitution of buses for trolley cars upon the remaining street car lines. The operation of buses will be more economical than the operation of trolley cars, and in other cities where trolley cars have been replaced by buses an increase in revenue has resulted. Careful study of the matter has convinced us that the operation of buses in place of street railway cars is essential to the successful conduct of the street transportation business in Trenton. . . ."

Substitution of buses was completed over all remaining street car lines within and adjacent to Trenton on Dec. 9, 1934. Seventy additional buses were acquired for the changeover on conditional sales contracts. Fleet total at the time was about 104 "operating units."

Unencumbered by street railway lines, Trenton Transit Co. was able with buses to seek additional revenues in sections of the city and suburbs not previously covered. Its financial position was further improved with the discontinuance of street car maintenance and the sale of street car equipment, including poles and wires. Proceeds were used to retire Receivers' Certificates.

As a matter of fact, revenues *did* take a turn for the better with the arrival of the buses. Riding and revenues for the years 1933-1936 were as follows:

1933 (80% street car, 20% bus)			
Street car revenues	$ 737,282	Street car riders	12,594,811
Bus revenues	$ 299,740	Bus riders	2,739,910
Total:	$1,037,022	Total:	15,238,321
1934 (11 mos. as above, 1 month all bus)			
Street car revenues	$ 695,786	Street car riders	12,442,882
Bus revenues	$ 295,307	Bus riders	4,560,299
Total:	$1,059,292	Total:	17,003,084
1935 (all bus)			
Bus revenues	$1,131,172	Bus riders	15,988,740
1936 (all bus)			
Bus revenues	$1,237,452	Bus riders	21,242,147

Partial credit for the improvement can certainly be attributed to all-bus operation. However, Trenton Transit Co., like everybody else, had by this time passed the peak of the depression. Riding increased everywhere. In Trenton more, not higher, fares were collected. Fares remained unchanged in this period and were: 10 cents cash, 1 cent for transfers and $1.00 weekly pass.

The cluttered corporate structure and its barnacles—the $1,641,000 of bonds—still needed cleaning up. In the Jan. 15, 1934, letter, mentioned earlier, the following reorganization was suggested:

- Consolidation of the four underlying companies into a single company to be called "Trenton Street Railway Co., Consolidated."
- Cancellation of all the stock of the four underlying companies and issuance of the stock of the consolidated underlying company to the bondholders of the four underlying companies. Basis for this transaction would be 10 shares of no par common stock to be issued for each $1,000 bonds. Bondholders would receive all of the capital stock of the consolidated underlying company that was issued.

Reorganization Begun

On Dec. 28, 1934, decrees were entered in the U. S. District Court for the District of New Jersey approving these plans of reorganization. Cancelled were the following outstanding stocks:

Trenton St. Railway Co.	**$1,000,000**
Mercer County Traction Co.	**100,000**
Trenton, Pennington & Hopewell Street Railway Co.	**250,000**
Trenton, Hamilton & Ewing Trac. Co.	**200,000**
	$1,550,000*

*On Jan. 31, 1933, $150,000 6% preferred $100 par value stock of Trenton Transit Co. was cancelled. Also $151,900 $100 par value common stock of Trenton Transit Co. was written down to $30,000 (300 shares at $100 par).

Also cancelled were the following bonds:

Trenton St. Railway Co.	**$ 500,000**
Mercer County Traction Co.	**292,000**
Trenton, Pennington & Hopewell Street Railway Co.	**349,000**
Trenton, Hamilton & Ewing Traction Co.	**500,000**
	$1,641,000

Also cancelled was interest on these bonds of about $400,000.

On Apr. 24, 1935, the New Jersey Board of Public Utility Commissioners approved the agreement of consolidation. Trenton Street Railway Co., Consolidated, came into being May 2, 1935. Stock in the consolidated company was issued to bondholders who had agreed to the exchange. A total of 15,230 shares of common stock without par value was allocated as follows:

Stockholders of Trenton Street Railway Co.	**5,000 shares**
Stockholders of Trenton, Hamilton & Ewing Traction Co.	**5,000 shares**
Stockholders of Trenton, Pennington & Hopewell Street Railway Co.	**2,310 shares**
Stockholders of Mercer County Traction Co.	**2,920 shares**

Next—the $1,562,063 in claims of the four underlying companies for unpaid rent. These claims were all cancelled by agreement between the receivers and the claimants. In place of a fixed charge of $150,000 as rental, a change was made in the lease to the operating company which provided that the rental would be a fixed percentage of the yearly net profits of the operating company, after payment of operating expenses, taxes, equipment costs, interest upon remaining bonds and other charges agreed to by the underlying company.

This brings the writer, the reader and Trenton Transit Co. up to the middle of 1935. As of June 30, 1935, assorted claims against the company, including back rentals, had been reduced from $1,845,233 to $161,920. Space does not permit a point-by-point description of the various claims that were settled in

Trenton Transit is back on its feet again and still in private hands thanks, in part, to cooperation and sacrifices of stockholders and bondholders.

this period. Suffice to say an exhaustive series of negotiations took place. Uppermost in everyone's mind, receivers' and creditors' alike, was a determination to keep the transit system intact and give it a sound financial basis. Endless sacrifices of equity and effort made this possible.

Self-Insurance Plan

Before we examine the final rearrangement of the household, one cost cutting effort instituted early in 1935 should be mentioned. Since Aug., 1935, Trenton Transit Co. has carried its own insurance. As the receivers noted in their report for the period Jan. 1-June 30, 1935:

"The experience of the Trenton Transit Company and the receivers showed that insurance companies carrying insurance upon automobile buses operated by the Company and by the receivers, charged premiums so far in excess of the amount of claims these companies were required to pay that it seemed advisable to the receivers that public liability and property damage insurance be discontinued. The law, however, required the carrying of public liability insurance and it was necessary for the receivers to request the Legislature to amend the law so as to permit receivers to self-insure their public liability. Such an amendment was passed . . . With the approval of the Court, after notice to all parties in interest, the receivers have discontinued the insurance theretofore carried by them and have become self-insurers, except that they do insure their liability above $15,000 and up to $20,000 for injury to any one person in one accident, and above $15,000 and to $85,000 for injury to more than one person in any one accident . . . The act above mentioned required that $50,000 be deposited with the Commissioner of Banking and Insurance to secure the liability of the receivers to persons injured in accidents, and this deposit was made on the 14th day of May, 1935."

In the 13-year period since this change, Trenton Transit Co. has saved an estimated $500,000 by self-insurance.

We jump now to Aug. 4, 1937. Unable to pay annual interest ($100,270) on bonds still outstanding and meet yearly sinking fund payments ($44,160) and confronted with arrearages of $288,860 in these payments, the receivers wrote a letter to holders of Trenton Passenger Railway Co. Consolidated 6% bonds of 1961 and Trenton Street Railway Co. 5% and 4% bonds of 1968. After pointing out the excessive strain such payments and various other claims placed upon the struggling company, receivers informed the bondholders that: "Unless the holders of the above bonds will give their consent to the reduction of interest and sinking fund charges herein proposed, it is evident that the Receivers will be faced with ever-increasing deficits and will never be able to catch up with interest and sinking fund payments. . . . The Receivers believe that by March 1, 1938, they will be able to pay interest and sinking fund charges as they become due if the bondholders will co-operate by agreeing to the following terms." These were, in part:

- Reduction of interest on Trenton Passenger Railway Co. Consolidated 6% bonds to 4%;
- Reduction of interest on Trenton Street Railway Co. Consolidated 5% and 4% bonds to 3%;
- Reduction in sinking fund charges of 50% for four years, commencing Jan. 31, 1938. As in the case of the earlier bond adjustment, practically all bondholders consented to these reductions.

Bond Exchanges

Two years later, following another letter from the Receivers to these same bondholders, a further adjustment was effected. Holders of Trenton Passenger Railway Co. Consolidated $1,000 bonds of 1961 were asked to exchange them for $800 Series "D-1" Receivers' Certificates bearing interest at 4%. Holders of $1,000 Trenton Street Railway Co. Consolidated bonds of 1968 were asked to exchange them for $750 Series "D-2" Receivers' Certificates bearing interest at 3%. A sinking fund was set up to provide for the eventual retirement of these Receivers' Certificates.

One final corporate move remained. On Nov. 25, 1941, having obtained a court order modifying the injunction issued when the company was placed in receivership, the Receivers filed a petition with the Board of Public Utility Commissioners for approval of a merger of Trenton Transit Co. into Trenton Street Railway Company, Consolidated, and the change of name of the latter company to "Trenton Transit." Directors of the two properties, thanks to the modification of the injunction, had previously voted approval of the merger. Petitioners asked that the merger be effective Dec. 31, 1941. It was believed that the merger would:

- Simplify the corporate structure, leaving one company which would own and operate the transit system;
- Rectify a disadvantageous tax situation (lessee otherwise would be required to pay very large excess profits taxes inasmuch as lessee would not have benefit of invested capital of lessor company);
- Result in further economies in that only one corporation would be maintained where two existed.

Not included in the petition filed with PUC was still another economy anticipated in the merger. This was the discontinuance of the "company" in the corporate title. A saving in time and paint has, as a matter of fact, been realized.

Merger Approved

The merger became effective Dec. 31, 1941, with the approval of the PUC.

That's the story of Trenton Transit. What has it all meant? Simply this—because no one threw in the towel:

(1) The system stayed intact; transit service continued without interruption and, continuing, improved and expanded. Fares? A ride in Trenton still costs only 10 cents (1st fare zone covers all Trenton and then some—or 29 square miles) with 1 cent for transfers and $1.35 for a weekly pass. (Company has filed petition for discontinuance of the unlimited weekly pass.)

(2) Municipal operation, and all its attendant vexations, has been averted.

No mean achievement, all things considered.

Public Service Commissions

What Are the Limits of Their Authority?

Here are "chapter and verse" references which may help you determine whether you can take action against a public service commission ruling.

by **LEO T. PARKER**
Attorney-at-Law

RECENTLY a reader wrote as follows: "When and under what circumstances does a public service commission have exclusive authority to decide whether a bus company may or may not receive a certificate of convenience and necessity? Also, when can a dissatisfied certificate holder appeal to a court to settle his controversy?"

According to a recent higher court, the Public Service Commission has exclusive jurisdiction in a controversy involving granting, amending, altering or cancelling certificates of public convenience and necessity. However, the instant the Commission renders its final order or decision the court will review the Commission's proceedings and decision. Otherwise the court will not intercede.

For example, in Phillips v. Southeastern Greyhound Lines, 208 S. W. (2d) 43, a Kentucky state law authorizes the Public Service Commission to determine whether any rule, regulation, or law pertaining to the operation of common carriers has been violated by the holder of a certificate. Also, the Commission has the authority to suspend, revoke, alter, or amend any certificate issued to such carrier by it.

The Southeastern Greyhound Lines is the holder of a certificate of convenience and necessity authorizing it to transport passengers between Lexington and Mt. Vernon, via Nicholasville. One Phillips is the holder of a certificate of convenience and necessity issued in 1925 authorizing him to transport passengers via Nicholasville, but the certificate contains the following restrictions: "No passengers are to be handled between Lexington and Nicholasville." The Southeastern Greyhound Lines' original certificate was issued in the year 1937 and contains no restriction. In 1948 the Southeastern Greyhound Lines sued Phillips and asked the court to grant an injunction prohibiting him from accepting passengers in Lexington for discharge in Nicholasville, and from accepting passengers in Nicholasville for discharge in Lexington.

The lower court granted the injunction. The higher court reversed the decision, and said:

"It is obvious that the Motor Transportation Division (Public Service Commission) should determine the rights of the parties, and, if necessary, amend the certificate of either, as it may determine in its sound discretion will be to the benefit of the public. Until the Division has exercised its discretion in this matter as between the present holders of certificates, the courts should refuse to entertain jurisdiction of the question."

This court also explained that it would be proper for the court to entertain a suit to construe the rights of the parties under their respective certificates only where the Public Service Commission has acted with finality and there is no proceeding pending wherein it has the right to amend, cancel or vary the certificate which the court is called upon to construe.

This court said further:

"When a proceeding is pending before the Commission wherein it has the authority to amend a certificate, it would be futile for the court to determine

"The question is not whether the granting of the application will be for the convenience and accommodation of some of the public, but whether it will be for the convenience . . . accommodation, and advantage of the public generally . . ."

the rights of the parties. Should the Commission abuse its discretion in altering or amending, or in refusing to alter or amend, a certificate, the aggrieved party may appeal to the court."

For comparison, see Reo Bus Lines Company v. Southern Bus Line Company, 272 S. W. 18. Here the court recognized the right of the holder of a permit to enjoin a nonpermittee from infringing on the rights obtained under the permit, although it denied the relief sought. However, in that case no suit was pending before the Public Service Commission.

Also, see Union Transfer Company v. Huber & Huber, 97 S. W. (2d) 609. This case was unusual in that the Public Service Commission authorized Huber & Huber to infringe on the route covered by the certificate of the Union Transfer Company. In other words, the Commission acted finally. The court issued an injunction in favor of the Union Transfer Company since it decided that the Commission had acted unwisely and not in accord with its authority granted by the state's laws.

And again see Eastridge v. Southeastern Greyhound Lines, 133 S. W. (2d) 95. In this case the Commission approved an application for a certificate of convenience and necessity without giving notice to a competitor.

The court granted injunctive relief to the competitor upon the basis that the Commission abused his discretion, and the competitor had no remedy at law. In this case, also, the Commission had acted finally in granting a certificate, but without giving the operator of a competitive bus line any notification or opportunity to oppose the granting of the certificate.

On the other hand, in Ashland v. Beckham, 111 S. W. (2d) 575, the court refused to render an opinion in a suit to enjoin the Public Service Commission from issuing a certificate to a competitor. The effect of that decision is that the courts will not take jurisdiction of a controversy which is pending before the Public Service Commission.

Hence it is quite apparent that the law is established as follows:

"Where the Public Service Commission is called upon to determine any question in respect to a certificate it has issued, or is about to issue, the courts will not interfere until the question finally has been decided by the commission."

Competition—An Administrative Question

It is true that a Commission usually will not grant a plurality of certificates or permits for similar service over the same route. Nevertheless, the fact that granting a new certificate will cause financial difficulties to an established bus company is not a good argument against issuing the new certificate. Therefore, a court will not reverse a Commission's ruling solely on such a plea.

For example, in H. J. Gongaware & Sons v. Pennsylvania Public Utility Commission, 60 Atl. (2d) 364, the testimony showed facts, as follows: The Pennsylvania Public Service Commission issued an order extending the operating privileges of the Trafford Motor Bus Service to the privilege of providing group and party service at points on its presently authorized route. A competitor who holds a certificate authorizing the furnishing of similar group and party service appealed to the higher court and argued that issuance of the new certificate "cut at the very heart of his business." In other words, the older holder of the group and party service contended that if the Trafford Company were permitted to enter into this same field or area, neither company could earn a reasonable profit. Nevertheless, the higher court held the new certificate issued by the Public Service Commission valid. The court said:

"That is unfortunate, if true, but the extent to which there shall be competition is an administrative question which must be left to the discretion of the Commission. We are not persuaded that this case presents anything more than an administrative question to be decided by the Commission."

On the other hand, see the case of Gulf Transport Company v. Illinois Commerce Commission, 83 N. E. (2d) 336. This higher court held that the fact a few persons in an area where a new bus company desires to operate might be benefited by additional service is not sufficient reasons for granting certificate of convenience and necessity, where the testimony shows that the old bus company already in the field would, because of loss of local business, be required to curtail certain trips between other points to the detriment of the general public. This court reversed the findings and order of the commission granting the certificate. The court said:

"Before the competing certificate may be granted it must be established that the pioneer in the field was unable to adequately perform the service which may be found necessary and convenient by the commission; that the pioneer in the field cannot render any additional service to meet that proposed; that it cannot furnish the service required by public convenience and necessity. The entire order in this cause is inconsistent with the holdings."

Also, see West Suburban Transportation Company v. Chicago, 309 Ill. 87. This court said:

"Whether the public convenience and necessity require the establishment of a new transportation facility is not determined by the number of individuals who may ask for it."

And again in Egyptian Transportation System v. Louisville, 152 N. E. 510, the court said:

"To authorize an order of the Commerce Commission granting a certificate of convenience and necessity to one carrier though another is in the field it is necessary that it appear first that the existing utility is not rendering adequate service."

Vested Right

According to a recent higher court, a bus company, granted a certificate of public convenience and necessity by the Public Service Commission to operate buses to and from a certain area, has a vested right, which cannot be taken from it without proper hearing before the Public Service Commission. If the hearing is not granted, or if the Commission renders a final order or decision inconsistent with the facts, the court will reverse the order or decision.

For example, in Northwest Greyhound Lines, Inc., v. Department of Transportation, 297 Pac. (2d) 903, the Commission denied the Northwest Greyhound Lines, an old established bus company, a permit to increase its service in the same area it had served, and granted a permit to a competitor to render service in this same area. The higher court reversed the Commission, and said:

"Appellant (Northwest Greyhound Lines) has a vested right in its certificate to operate to and from the area. That right cannot be taken away until a hearing is had, a proper order entered based upon a showing of a violation of the law relating to traffic regulations, and it is shown that the certificate holder has refused to obey the order."

Also, see Atlantic Greyhound Corporation v. Public Service Commission, 54 S. E. (2d) 169. This court reversed an order of the Public Service Commission granting a bus company a certificate of convenience and necessity to operate over a designated route without giving certificated carriers then operating over the same route reasonable time and opportunity in which to remedy inadequacy of service furnished by them. This court said:

"The requirement of reasonable time and opportunity to remedy any inadequacy or insufficiency of the service of a certified operator is mandatory and must be satisfied by the commission before it can grant a certificate to an applicant to operate over the same route as a common carrier."

Cannot Duplicate Service

According to a recent higher court, competitive routes of common carriers will ordinarily be authorized only where the existing carrier refuses or has failed to provide adequate service on order of the Public Service Commission. In other words, the Commission must order the carrier either to furnish or not furnish service before a court will intercede.

For example, in Effenberger v. Omaha & Council Bluffs St. Ry. Company, 38 N. W. (2d) 296, the testimony showed facts, as follows: A certain route is being served by a street railway company. A bus company applied to the Public Service Commission for a permit to operate between the same points and over a slightly deviated route, and proved that its service would be much faster. The Commission refused to issue the permit and the bus company appealed to the higher court, which refused to reverse the Commission. The court said:

"The sole power to grant or deny a certificate of convenience and necessity to a common carrier rests with the Commission. Courts are without authority to interfere with the findings and orders of the Commission except where it exceeds its jurisdiction or acts arbitrarily."

Effective Jurisdiction

Considerable discussion has arisen from time to time over the legal question: When and under what circumstances may a Public Utility Commission have jurisdiction and control of buses operated through cities which claim jurisdiction? The answer is: The Public Utility Commission has exclusive authority to control bus companies which operate in cities when the testimony shows that its jurisdiction is necessary for effectiveness, and convenience of the public.

For example, in State ex rel. City of Miami Beach, 39 So. (2d) 552, a state law was litigated which provides that the Public Utility Commission has no jurisdiction or control of companies operating motor vehicles between cities and towns whose boundaries adjoin where the business is regulated by the cities and towns.

The question presented the court was whether the Florida Public Utilities Commission has jurisdiction to grant a certificate of public convenience and necessity to the Coast Cities Coaches to operate motor buses through certain cities. The proposed route does not lie wholly within the corporate limits of any city or town, but the bus company's business is now regulated to the cities and towns through which the route passes.

The higher court held that the Public Utility Commission has the exclusive right to regulate the bus company and said:

"It is our conclusion that the proposed operation of business of carriage by Coast Cities Coaches, Inc., should be regulated by the Florida Public Utilities Commission for it is the only regulatory body which could, under the law, exercise complete and effective jurisdiction."

Majority Benefited

Another important point of law is that the Public Service Commission is expected to render opinions and orders which benefit all citizens in a city, not merely a few persons.

For example, in Harmony Motor Trans. Company v. Pennsylvania Public Utility Commission, 67 Atl. (2d) 624, it was shown that a bus company filed an application to provide local passenger service over a short route between contiguous cities. The proposed service would supply a desirable convenience to some of residents of those cities, but the testimony showed that another bus company made 90 round trips a day over the same route and its service was reasonably adequate. In other words, the testimony proved that granting the application would be for the convenience and accommodation of some of the public.

It is interesting to observe that the higher court refused to grant the application, and said:

"The question is not whether the granting of the application will be for the convenience and accommodation of some of the public, but whether it will be for the convenience, accommodation, and advantage of the public generally and considered as a whole."

Also, see Modern Transfer Company v. Pennsylvania Public Utility Comm., 12 A. (2d) 458. This court said that it is the duty of the Public Service Commission to preserve a dependable citywide local transportation service for the whole community and not for a small part of it.

The Ticket Window

A DEPARTMENT FOR THE TRAFFIC MAN

N. Eng. Greyhound, Flying Tigers Sign First Bus-Air Freight Pact

A NEW STEP in the development of air cargo, closely tying together regional ground service and worldwide air freight operations, was taken recently with the signing of an agency agreement between New England Greyhound Lines, Inc., and the Flying Tigers Line.

Believed to represent the first tie-up between a large scale ground service company and an air freight line, the agreement was concluded by Albert M. Farr, District Sales Manager for the Flying Tiger Line at Boston, and John K. Whittemore, General Traffic Manager of New England Greyhound Lines. Greyhound President "Red" Brion made the announcement.

Mayo Thomas, General Sales Manager of the air carrier, said that New England Greyhound had become an agency representative for Flying Tiger in all of the 200 cities served by the Greyhound network in New England. In effect, he said, this makes the smallest New England city almost as close to the world markets served by air freight as any metropolitan center.

"This opens up an entirely new field of traffic for the air carrier as well as the bus operator," Thomas said. "It means immediate access to any domestic or world market by any business needing the services of air freight."

Under the agreement, Greyhound will accept or deliver air freight at any of its stations. Outbound freight from New England will be placed on the first available bus for the New York City terminal and transferred to Flying Tiger. It will then be loaded on a fast freight airplane to any point on the transcontinental system of the airline or to any point served over the world by the network of connecting air carriers with which Flying Tiger already has agreements.

With the service frequency offered by Greyhound, and the speed of Tiger air freight, almost any New England city is now only 48 hours away from any American market.

The first consignment of freight is transferred from Flying Tiger plane to New England Greyhound bus at Boston's Logan International Airport.

Tiger's Farr and Greyhound's Brion

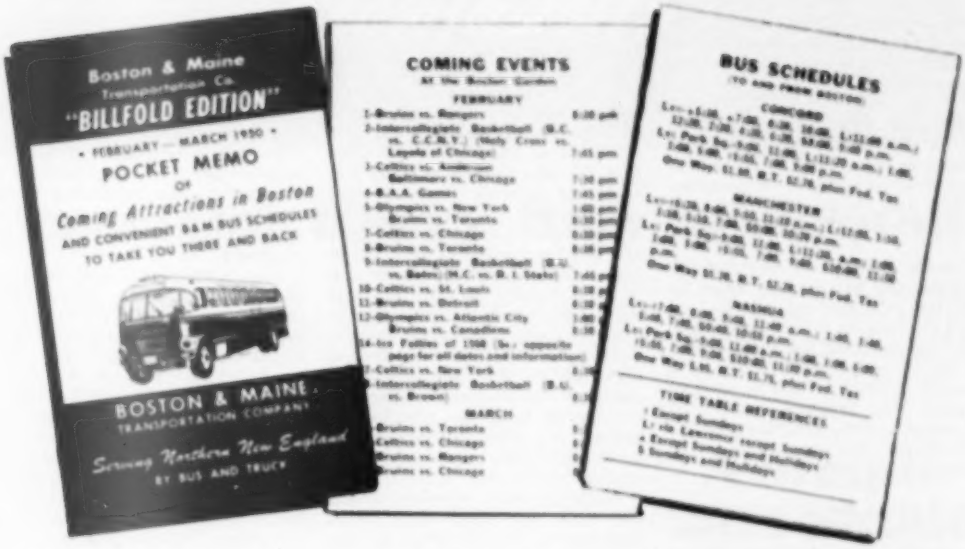
Georgia Drivers Are Salesmen

THE Columbus Transportation Co., Columbus, Ga., has started a public relations program to increase its passenger traffic. A. B. Wallace, superintendent of transportation for the company, pointed out that the company is obtaining results by encouraging drivers to sell bus riding through courtesy, being well-informed to answer questions about the city, bus schedules, and being extra careful about the riding comfort of their passengers. Further, he says, they are selling bus transportation among themselves and their friends.

As an added promotion, the company has a schedule of spot radio broadcasts which are proving successful.

The company is adding ten new 36-passenger Southern Coach buses to its fleet to bring the total fleet to 75 buses.

"Pocket Memo" Helps B. & M. Sell Its Services



Boston & Maine Transportation Co. finds these "Billfold Memos" of coming events well worth while.

D. Spencer Beaudoin, Assistant to the Manager of the Boston & Maine Transportation Co., submitted the above sample of that bus line's "Billfold Edition" of coming attractions in Boston. He explained that two of the company's main lines operate into Boston, hub of New England sports activity.

Because of Boston's traffic congestion, and because many people in the Greater Boston area don't like to drive in the city, B & M is using the Billfold Edition, plus newspaper ads, to attract special events business.

"To attract this type of business," Beaudoin said, "we try through our terminals to be associated with everything of importance in the way of entertainment here in Boston. We give all the information people want and if possible purchase their admission tickets for them."

The Billfold Edition of coming events costs B & M about $158 for 20,000. Distribution is made through service clubs, personnel departments of stores and plants, and terminals. The folders, used now and then as vehicles for special messages from the bus company, are issued bi-monthly.

Atlanta's New Transfer Booths

Veteran Georgia Power Company Supervisors J. R. Helm and W. C. Hooten examine one of eight steel and glass booths erected at transfer points on the company's Atlanta city transit system. The booths are equipped with electric lights, heaters and phones. Not only do they protect supervisors, but are store-houses for transfers and supplies.

BRIEFS

Virginia Transit Company's "Frugaline," (B-T, February) has been extended along Grace and Broad Streets in Richmond to give more five-cent service to downtown Richmond.

* * *

Reading (Pa.) Street Railway Co. is offering its passengers bus tickets in handy book form. A convenient-sized book of 20 nine-cent tickets for use on either buses or streetcars sells for $1.80.

* * *

Pacific Electric Co., serving Los Angeles and surrounding areas by bus and rail, received several hundred requests for free system maps, showing Southern California beauty spots, after advertising in a souvenir edition of a Los Angeles paper. Map requests came from 16 states and Canada. Most of the out-of-state requests came from Ohio.

* * *

In a newspaper ad announcing it would soon put six new diesel buses in service, the Jamestown Motor Bus Transportation Co., Jamestown, N. Y., translated the initial cost of the new buses in terms of 1,359,996 fares. Since only a small part of each fare will be used to pay for new equipment, it will take actually about 20,000,000 fares to pay for the new buses.

* * *

Key System Transit Lines has initiated express service in peak commuter periods between San Francisco and East Alameda, Cal., via a recently completed freeway. The new run cuts time by seven minutes and may cut actual time of peak runs, formerly subject to traffic jams, by about 25 minutes.

* * *

Holiday's News Letter reports that the advertising budgets of 33 American Steamship companies and four steamship trade associations in 1948 totaled $4,516,300, with about equal amounts going to daily newspapers and national magazines. Figures were compiled in a survey made by the National Federation of American Shipping.

* * *

At a Greyhound Traffic Managers' meeting at the Morrison Hotel, Chicago, last month, plans for extended promotion of Greyhound Highway Tours were discussed. Greyhound may open the package tour business to its thousands of commission agents.

New "Continental" Bus is Put On Denver-Salt Lake Run

CONTINENTAL Trailways Bus System placed its new deck-and-a-half bus, the "Continental," on an actual schedule operation for the first time on February 15. The new bus is in operation on the Denver-Salt Lake City run and makes a one-way trip each day between the two state capital cities.

Passengers riding on the coach are handed business reply cards. The cards ask the passenger how he liked the trip, what he thinks of the new type bus, and asks for suggestions about passenger accommodations. The bus operator picks the cards up and they are mailed directly to the executive offices of Continental Trailways. Continental officials are closely watching the public acceptance under actual operating conditions.

Equipped with lavatory, snack bar, radio and many other travel refinements, the "Continental" has been on a combination test and exhibition tour for the past five months in various sections of the country. It has been estimated that somewhere between 7,000,000 and 10,000,000 persons have either seen or read about the new bus.

The new coach has proved to be the first successful design of its type that is practical and still remain within the size restrictions of the various state regulatory bodies and the Interstate Commerce Commission, Continental Trailways officials said.

The "Continental" has been designed with the idea of providing the bus passenger with the more expensive comforts of travel without the necessity of having to pay more.

"Naturally," said M. E. Moore, President of Continental Trailways, "we are proud of the fact that our company is the first to come out with a new coach that has been designed for today's passenger today. Tomorrow, perhaps, we will be allowed to build a larger piece of equipment, but our idea is to provide improvements in our service and our equipment right now, and continue these improvements as we are permitted to do so."

American Buslines Announces Two Contests to Spur Sales

AMERICAN BUSLINES has announced two new contests designed to spur ticket sales. One is the first Charter Sales Contest of 1950, open to all but executive employees of the intercity carrier. Operated like a similar contest last year, contestants win one per cent of all monthly sales of $100 or more, with additional prizes of $100 to the high man in each of three classifications.

The other contest, a "Selling Bee," is open to ticket agents and offers merchandise prizes awarded on a point system. Points are based on monthly sales, dollar volume of sales and round-trip ticket sales. Prizes ranging from matched golf clubs to stuffed toy pandas may be selected from the "Selling Bee" catalog.

The charter sales contestants last year shared $906.95 in prize money. Seventy-three contestants entered the 1949 contest, compared with only seven the year before. Although no tally of the total charter sales traceable to the 1949 contest was made public, some indication of the success of that campaign may be had by viewing the achievements of one top winner: J. W. Berry, city sales representative in Cheyenne, Wyo., received a check for $75 (plus the $100 top division award) on the basis of $12,382.81 worth of charter sales.

The Charter Sales Contest is open to all employees except assistant general manager, general sales managers, regional operating managers and commission agents. The first contest of 1950 began February 1 and closes April 30. As in past contests of this kind, the operating department of American Buslines will handle reports and all winners are notified and paid at the end of each contest.

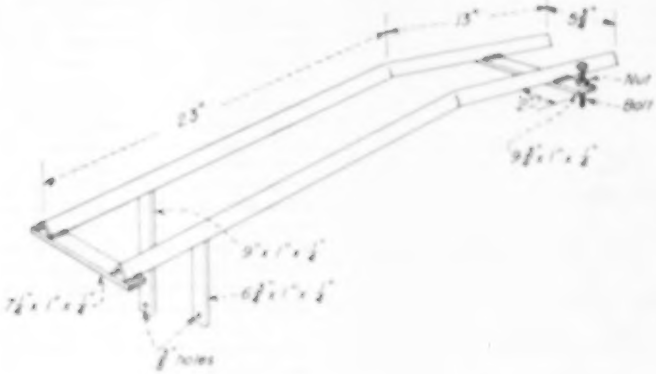
"Every employee may have the benefit of extra dollars," the report stated, "if he will put forth an extra effort to sell charters."

You are invited to send ideas to the Howjadoit Editor. For each published item we will pay from $5 up to $10.

Howjadoits

Here are practical examples of things alert maintenance men are doing to cut costs and to improve efficiency.

Removing Heavy Duty Generator



By James Courter
Bee Line Transit Corp.
Danville, Ill.

A SLIDE bracket which enables one man to remove or install generators on TDH 32 and TDH 36 GM coaches with ease is used in Bee Line Shops.

To build this useful device, the following materials are required: Two 36 in. lengths angle iron—¼x1 in., one 1x¼ in. flat iron 9¾ in. long, one 1x¼ in. flat iron 9 in. long, one 1x¼ in. flat iron 7¼ in. long, one 1x¼ in. flat iron 6¾ in. long, one USS bolt 4x½ in., one USS bolt 2x½ in., and two USS ½ in. nuts.

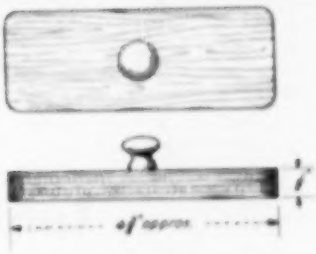
Make a V-cut in both angle irons 13 in. from one end and bend both angles to approximately 8 to 10 deg. bend. Drill a ½ in. hole near each end of the 9¾ in. flat iron and weld the ½ in. nuts over the holes on one side of the iron. Weld this brace across the short end of the two angle irons (on under side) 3½ in. from the ends—brace is to lap 2 in. on the side that will face front end of coach and 1 in. on rear side. Spacing of angles will be approximately 5¾ in. center to center.

Weld the 7¼ in. flat iron at the other ends of the angle irons, spacing the angles 5½ in. apart. Drill a ⅝ in. hole in the 9 in. flat iron at one end and bend approximately 1 in. of the other end into a 90 deg. bend and weld the bent end under the angle iron that will be at the rear of the coach. Leg is to be welded 6 in. from end.

Drill ⅝ in. hole in one end of the 6¾ in. flat iron and bend approximately 1 in. of the other end into a 90 deg. bend and weld the bent end under the other angle iron 5 in. from the outer end. The ends of these legs with the holes are to be bent so that the holes will fit over the nearest bolts in the transmission housing.

To use this device, first remove adjacent parts necessary in removing generator and before removing generator holddown bolts, slip slide bracket under generator and bolt outside legs to transmission housing. Using the 4 in. bolt in the front side of the bracket and the 2 in. bolt in the rear side, adjust these bolts (adjustable legs) so that the slide bracket is snug under the generator—then remove generator bolts and slide generator down on work table. When replacing the unit, merely slide generator back in place and bolt.

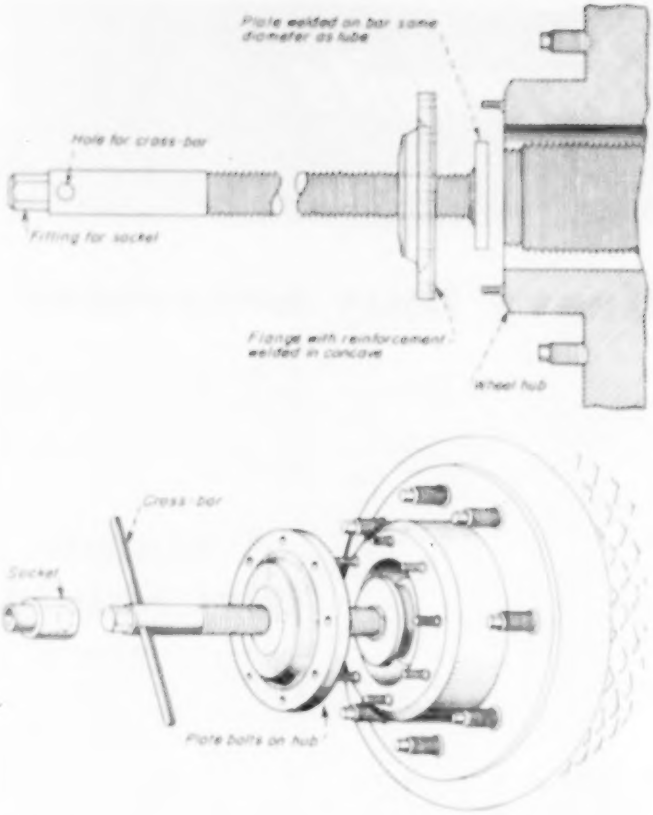
A Simple Dirt Shield



By William F. Smith
Foreman, Windemere Garage
Cleveland Transit System

A SIMPLE DEVICE has been made which serves a dual purpose when work is being done on the GMC 4-71 and 6-71 engines. It is a wooden block which fits into the openings at either side of the cylinder bore. These openings, when the cylinder head is off, provide access to the cam and balance shafts. They are traps for dirt when the block surface is being cleaned.

Use ½ in. plywood, mark the contour of the opening and cut it to fit. A small handle installed provides the means to insert and remove the plug. In addition to preventing dirt from entering the engine crankcase, the plugs also protect the mechanic from flying oil spray when he uses an air hose to blow out the loose dirt and carbon.



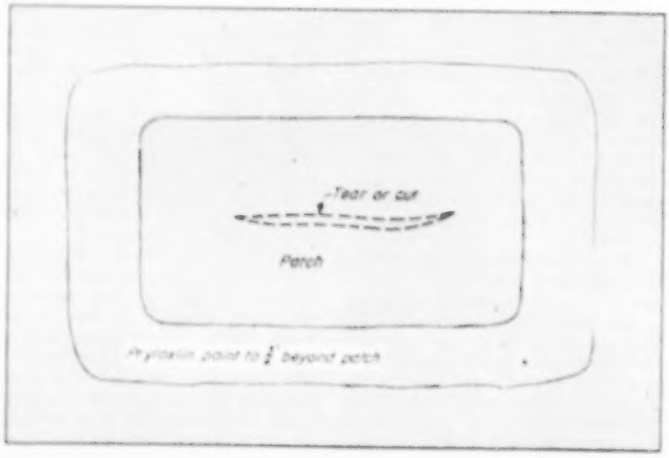
Rear Wheel Puller

By Henry R. Menegus
Greyhound Lines
Belvidere, N. J.

AN EFFICIENT PULLER for rear wheels that get stubborn in coming off can be developed readily by use of spare parts that readily are to be found around the shop. If your particular coach uses a heavy type axle flange cover, it can be used as part of the tool. However, should the plate be of the thin metal type, you must fill in the concave inside part with a plate, or get a piece of metal and cut out another plate to substitute for the flange cover.

A bar is obtained and a flange welded on the end as shown in the diagram. This flange must be the same diameter as the axle tube so that if the wheel comes off all the way by force, the front bearing will be able to slip over the flange itself. As for the threads inside the plate and around the bar, they are made on the lathe. At the end of the bar a hole for a cross-bar can be made, or if individual taste so dictates, a fitting can be made for use of a socket.

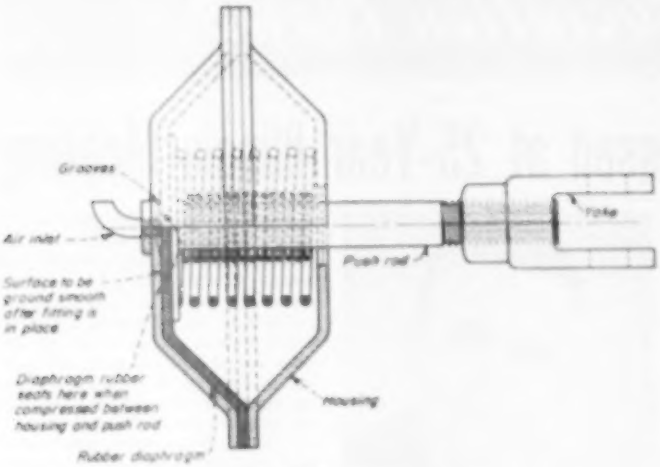
Patching Leather Seats



By Carl G. Knittel
Body Foreman
The Youngstown, Ohio, Municipal Railway Co.

A SATISFACTORY repair to a leather seat where a hole has been worn or cut in seat cover may be made without removing covering by the following procedure: First, roughen or rasp and clean covering to remove all grease and foreign matter. Next, apply coating of Weldwood Plastic Resin Glue (United States Plywood Corp., 57 W. 44th St., New York) thinned to spreading consistency. Then, cut patch of Industrial Tape No. 214 (Baur-Black Co., Dept. PPD, 2500 S. Dearborn St., Chicago, Ill.). Make sure edges are well cemented. Paint with Pryoxlin paint (Pyroxlin Products Co., 4851 S. St. Louis Ave., Chicago, Ill.). This is for brown covering only.

Corrects Uneven Braking



Brake Chamber N.T.S.

By Casimer Kaliszewski
Windermere Station
Cleveland Transit System

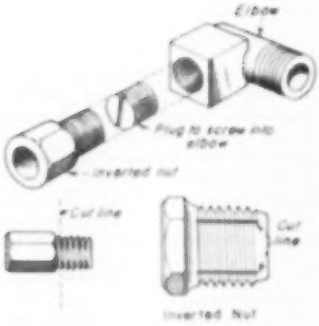
DIFFICULTY due to uneven braking was experienced with a number of our vehicles. Extensive research revealed that all of these vehicles had brake chambers in which the air inlet elbow was in the center of the pressure plate of the brake diaphragm.

After the diaphragm rubber had been in use for some time, deterioration of the outer surface resulted in a spongy condition. The spongy material tended to creep into the inlet opening and when the air was applied, the other brakes were already operating before the diaphragm of this brake was forced from the air inlet hole. This caused a "brake grab" on one wheel. This condition was particularly noticeable on wet and slippery pavement, and it also caused spotty tire wear.

In each case of this particular defect it was found that the inlet elbow extended past the inner surface of the pressure plate, sometimes as many as two or three threads were exposed. To correct the failures, the fitting was ground even with the inner surface of the pressure plate and then a slot was cut in the plate and fitting (see accompanying sketch). All burrs were then removed.

All of the brake diaphragm pressure plates which were altered in this manner have been put back in service and there is no indication of this particular trouble recurring.

Inverted Elbow Tool



By Henry R. Menegus
Greyhound Lines
R. D., Belvidere, N. J.

AT ONE TIME or another mechanics have the job of installing elbows of the inverted nut type. Frequently these elbows are located in hard-to-get-at places. In order to prevent damage to these fittings during installation, we have made use of the little device shown here to make this take an inverted nut and fill the opening with solder or brass. This done, cut the nut as shown in the diagram.

Next, screw this piece into an elbow and let protrude about an eighth of an inch or so. Fasten the elbow in the vise and with two blades side by side, cut a slot large enough to take a screw driver. Then, screw in the small "plug" flush with the face of the elbow. You are now ready to go.

By placing this plug into the elbow, a wrench can be used without fear of injuring any of the threads, which would sometimes make the starting of the nut difficult, if not impossible. When the elbow is completely in place, remove the plug and you are ready to install the nut. A very good idea is to make up a complete set of these plugs for each size elbow and keep them in the tool box.

Incidentally, while in the process of making up this set of "plugs," one can make himself another set of very useful pieces. Obtain an inverted nut, preferably of the metal type (brass ones are softer and may not work as well) and make four or five saw cuts the long way as shown in figure 2. These cuts do not have to be deep. This nut now becomes a sort of tap. Whenever a female fitting becomes a little scored and won't take the nut, just run this "tap" through and it will straighten out the threads, allowing you to install the male nut without trouble. It may be desirable to make up a variety of these devices in different sizes.

Association News

Ride-Selling Stressed at 25-Year Illinois Meeting

ONE OF THE MOST successful and highly praised state bus association meetings to be held recently was the 25th anniversary meeting of the Illinois Bus Association which whizzed through an action-packed, one-day session at the Congress Hotel in Chicago February 9th.

The meeting was divided into morning and afternoon sessions. A business meeting followed 10 a. m. registration, and morning speakers were A. W. Koehler, secretary of NAMBO, who gave an account of developments affecting the industry from the nation's capital, and Paul O. Dittmar, president, South Suburban SafeWay Lines, Inc., who dealt with present day taxation methods in his talk, "Dollars and No Sense."

Merchandising the Ride

At the afternoon session, all attention was focused on "Merchandising the Ride," by all accounts the most productive and hard-hitting public relations panel to be held in some time. Chester G. Moore, president of the Illinois Association, served as moderator of the panel whose speakers were: Larry Ristow for Greyhound; W. H. "Billy" Spears, public relations director of National City Lines; Earl Parkhill, Illini-Swallow Lines, and John J. Shaughnessy, Continental Bus System. Moore is to be complimented for the excellent job he did as moderator. Frank Kane, Managing Editor of Bus Transportation, was to have served in that capacity, but illness prevented him from attending the meeting.

In his talk, which was the keynote of the afternoon panel, Publicist Spears dwelt on the "Mechanics of Public Relations." Public relations programs, he said, have been used by the bus industry all too little, "like old fire extinguishers—taken off the rack to spray a few squirts here and there when something smouldered."

W. H. "Billy" Spears
Public Relations,
National City Lines

"Before merchandising the ride," he said, "we must perfect the product." He suggested five ways in which that can and must be done: (1) eliminating the things that repel business; (2) training supervisors in the arts of learning, informing, instructing and inspiring; (3) campaigning to get quantity and quality work from all employees; (4) providing adequate information facilities and (5) getting more facts to the public about the service. He listed 23 "business repellers," and stressed the points of his message with the help of 43 visual aid posters. (Spears received so many requests for a copy of his speech that he had it put up in booklet form).

Following Spears' talk, Larry Ristow said most bus companies today were spending far less for advertising and sales promotion than they were before the war. He told how Greyhound was promoting business through special service to sports events and stressed the importance of building tours in getting more business.

John Shaughnessy detailed the excellent results in passenger revenue and increased bus mileage as a result of through bus service, and Earl Parkhill discussed charter business, its financial set-up and some of the ways to increase charters.

During the morning session, Altoe Nelson, secretary of the Association, to whom goes much of the credit for the success of the meeting, gave a report on the association's 25 years of existence.

"Twenty-five years ago," she said, "this association was formed for the purpose of 'furthering the interests of the authorized motor bus operators in Illinois'. . The value in looking back is not to measure time but accomplishments."

She pointed out that through the Association's efforts in winning approval for bus travel and overcoming the animosity in the public mind to buses, an editorial appeared in a small town paper in 1931 praising motor buses. She discussed briefly the legislative troubles the association had encountered in its effort to smooth the road for the industry, and traced the steady progress of the industry and the association.

Historic Exhibit Displayed

One of the features of the meeting that attracted much interest was a historical exhibit comprised of old photos, timetables, and included a 1916 picture of Ben Weintraub, president of Chicago Motor Coach, then a dispatcher. A cocktail party, with the Chicago Bus Club as host, was held at the close of the business session, and a cabaret dinner and floor show terminated the day's activities.

The 175 men who attended the meeting were unanimous in their high praise for the meeting. Secretaries of the Indiana, Pennsylvania and Ohio Associations were present, both to congratulate Illinois on its birthday and to get some ideas for possible meetings of similar kind for their groups.

Propane Test Bus Takes Spotlight at Houston ATA Meeting; Operators Study Its Advantages

BUTANE AND PROPANE, those fuel twins known as liquefied petroleum and around which much discussion has centered in recent months, literally stole the show at the Regional Meeting of the American Transit Association held in Houston, Texas, March 15-17.

Originally planned as just an ordinary meeting with fares, labor and costs as the principal topics on the agenda, a total attendance of about 75 was expected, but when word got around that a propane bus was going to be demonstrated and that the subject could be expected to produce considerable discussion, last minute plans by various manufacturing executives brought the attendance up to about 150.

A conference on small operations which was slated for the morning of March 15 was changed over to a Liquefied Petroleum session in order to give management officials present at earlier sessions of the week an opportunity to hear some of the discussions.

An operator with actual experience with a mixture of butane and propane in buses is Sidney Swope, president, Orlando (Fla.) Transit Co. Swope has two buses operating on this fuel and while it is still too early to give a detailed account of performance, he reports that there has been an apparent gain in power and that performance of the vehicles is smoother than with gasoline formerly used in these two jobs.

L. J. Fageol, president of Twin Coach Co., told of a test vehicle now operating on propane in regular service in Chicago and said his company had another similarly equipped coach in Houston, where it will remain for further test.

S. C. McIntosh, engineer of the Texas Railroad Commission, dealt with the subject of regulations for proper and safe handling of this fuel. If proper precautions are taken, MacIntosh pointed out, propane is as safe and perhaps even safer than gasoline. He told that there are about 3,500 tank trucks operating in Texas which transport liquefied petroleum. Some of them, he said, also use it as fuel.

Ralph G. Abbott, assistant chief engineer, Ensign Carburetor Co.—whose company builds liquefied petroleum carburetors—told of a test operation in which a truck had operated 96,000 miles and said that liquefied petroleum operation was more economical than was diesel. More than 100,000 liquefied petroleum gas carburetors have been built for internal combustion engines, it was stated, indicating that there is more widespread use of this fuel than is generally supposed. Other speakers on the subject were C. L. Parkhill and C. L. Parkhill, Jr., of Parkhill-Wade, consulting engineers, and A. E. Jamison, Phillips Petroleum Co., Bartlesville, Okla.

At the Management conference on March 14, discussions covered zone fares, particularly as used in Shreveport and San Antonio; effect of fare increases on riding and revenue; current fare levels and possible approach to the fare ceiling; school fares and special promotion fares. An afternoon session on labor problems covered handling of strike situation; trends in labor union demands; improvement of labor-management relations and specific labor problems on individual properties. The meeting concluded with a conference on matters dealing with claims.

Other ATA Sessions

A THREE-DAY regional conference of the American Transit Association and the March meeting of the New England Transit Club were held at the Hotel Statler, Boston, March 1-3. The conference had a registered attendance of 135 and the Club dinner had a turnout of approximately 500 members and guests.

The three-day ATA conference was devoted to problems of management, maintenance and of small operations. The first morning was devoted to a discussion of fares, their possible present and future trend and the promotional value of different types of fare structures. In the afternoon, labor-management problems were discussed. Henry G. Bowen, president of the Fitchburg & Leominster Street Railways Co., presided. The small operations conference held on the second day was presided over by R. D. Foster, vice president and general manager of the Bristol Traction Co. Among the subjects discussed were short fare zones, accidents, minimum service for off-peaks and private competition. Maintenance and related matters were discussed in the afternoon.

The third day was given over completely to maintenance problems and was presided over by C. O. Sparhawk, superintendent of maintenance, United Electric Railways Co. Subjects discussed at this all-day meeting included engines, torque converters, brake systems, axles and bodies.

John I. Donovan, president and general manager of the Eastern Massachusetts Street Railways, discussed the value of private control at the March 2 dinner of the New England Transit Club. The club, whose 50th anniversary will be celebrated April 18 at the Statler in Boston, now has 1,274 members, the most in its history. At the above meeting, 134 new members were received. Honorary life membership was given George H. Wahn, president of the George H. Wahn Co., Boston electrical wholesalers, for "faithful membership in the past 40 years."

Unless the current trend is reversed, said Donovan, the municipalities or the state will have to take over the larger bus companies. The speaker said he believes that the cities and the riding public are generally better off if the lines are operated by private capital.

"Instead of constantly asking private bus operators to take concessions," said Donovan, "city governments and town officials would be well advised to adopt a cooperative attitude if they wish to maintain the industry in the hands of private capital.

Later last month, two other ATA regional meetings were held. One, at the Rice Hotel in Houston, Texas, was held March 14-17 and included management, small operations, maintenance and claims panels. In both the management and the small operations conferences, the subject of fares was discussed, and the merits of zone fares reported. The other ATA regional meeting was held in the New Washington Hotel, Seattle, March 22-24. Devoted to problems of Northwestern operators, the meeting included conferences on operations, maintenance, engineering and overhead, accounting and stores, claims and safety.

NEWS of the ROAD

ICC Upholds Virginia's Seizure of A.B.&W.

Seizure and operation of a strike-bound bus company by the State of Virginia has cleared its first official hurdle.

ICC, on Mar. 6, refused to revoke the certificate of the Alexandria, Barcroft & Washington Transit Co., which has been operated by the Commonwealth of Virginia since July 21, 1949. Such action was sought in a complaint filed Sept. 21, 1949, by A. B. & W. Amalgamated employees, Local 1131.

Local 1131 maintained the operation of the property by the Governor of Virginia and the Virginia Corporation Commission violated the provisions of sections 206 (a) and 212 (b) of part II of the Interstate Commerce Act.

Local 1131 further maintained that Virginia's Public Utilities Labor Relations Act, authorizing state seizure, violated provisions of the National Transportation Policy as well as the National Labor Relations Act which expressly reserves the right to strike of employees engaged in interstate commerce.

The Commission ducked a ruling on the alleged violation of the NLRA. However, with the help of several dictionaries it came up with a "liberal interpretation" of the ICC rules governing transfers of rights of motor carriers.

After pointing out that it was "admitted by all the parties (that) the continued operation of the bus line . . .not only is essential in the public interest generally but also is of serious concern to the national defense" (many persons using the line commute from Virginia to government installations in the District of Columbia), the Commission turned to an examination of the rules of transfer adopted in 1943. Among the group, collectively termed "fiduciaries," authorized to continue operations of a property previously granted an ICC certificate, are "guardians of incapacitated holders of operating rights."

This, ruled ICC, was precisely the situation posed by the Governor's seizure of A. B. & W. Because of the contract stalemate and strike notice, A. B. & W. was "an incapacitated holder of an operating right." The Governor of Virginia and his operating arm, the Virginia Corporation Commission, were guardians, said ICC.

Commissioner Lee, dissenting, questioned the Commission's interpretation of "guardians." He felt "guardian," as used in Section 179.3 of the Transfer Rules, "is used. . .in its legal sense and means persons lawfully invested with the power and charged with the duty, of taking care of the persons and managing the operations of holders of operating rights who are incapable of administering their own affairs. . . It was not used as a high-sounding phrase, and it does not describe the admitted relationship between the State commission and the A. B. & W. company. . . ."Commissioner Lee expressed the view that the matter should have been assigned a hearing on the questions posed by the original complaint.

As this was written, attorneys for the complainants had not decided what further action would be taken. Meanwhile, bus service continues.

Mills Sees Trolley Buses Replacing Most SF Trolleys

Conversion of most San Francisco's remaining street car lines to trolley buses was recommended early last month by the city's new transit expediter, Col. Marmion D. Mills. He reported that 75 per cent of the street car mileage and 60 per cent of the motor bus mileage in the city was operated at a loss. Cable car lines are 100 per cent in the red. Only trolley bus lines show a profit, with 7 per cent operated at a loss.

Only street cars left in the San Francisco Municipal Railway system under Col. Mills' plan would be those running through the Twin Peaks tunnel, the K, L and M lines. The N line also goes through a tunnel, but Col. Mills said he believed trolley bus operation through the Duboce bore was feasible.

Last month one more street car line was due to be converted to trolley bus operation and two more to motor bus service. The Mission St. No. 9 line was to go to trolley bus; the H. and D. lines to motor buses.

Fares, Wages, Terminals Keep N.Y.C. in Dither

What with a terminal tiff, a fare fight and a wage wrangle, New York's Mayor William O'Dwyer had his hands full last month.

Involved in the terminal tiff were Greyhound and the Port of New York Authority. Greyhound wants to expand and modernize facilities of its 34th street terminal. It would spend $5,000,000 and provide off-street parking for 773 cars in doing so. However, in hearings Mar. 10 before the City Traffic Commission, Greyhound officials admitted bus traffic in the congested area would be increased 7 percent with the expansion. Bus berths would be increased from nine to nineteen. Appearing at the hearing were: Harold J. Drescher, counsel; Ralph A. L. Bogan, executive vice president of the Greyhound Corp.; S. R. Sundstrom, president of the Greyhound Building Corp., which owns the 34th street property.

The Port Authority, now building a $22,000,000 union bus terminal seven blocks north of the Greyhound site, did not participate in the hearings. The Port is standing pat on an earlier assurance from Mayor O'Dwyer and the Board of Estimate that no new terminals would be built nor existing terminals permanently expanded in an area encompassing both the Greyhound site and its own.

Latest word from the Traffic Commission was that it would forward its findings on "the traffic aspect" of the Greyhound plan to the Bd. of Est.

* * *

If the terminal matter was strictly local, the fare fight was not. This one reached all the way to Albany and Governor Dewey. The latter made public on Mar. 12 a special report filed with him Feb. 24 by a despairing Public Service Commission. Its fare-

(Continued on page 76)

Table of Events

April

12-15—Ontario Motor Coach Operators, Annual Convention, Ottawa, Can.
26-27—Third Highway Transportation Congress, Hotel Mayflower, Washington, D. C.
27-28—Annual Convention, Indiana Bus Association, Oliver Hotel, South Bend, Ind.

May

21-27—World Trade Week.
29-June 9—Canadian International Trade Fair, Toronto.

June

11-13—Annual Meeting, Pennsylvania Bus Association, Pocono Manor, Penna.
12-14—Annual Convention, Canadian Tourist Association, Muskoka, Ont., Can.
10-12—Annual Convention, Midwest Transit Association, Cosmopolitan Hotel, Denver, Colo.
16-17—Annual Summer Meeting, New York State Motor Bus Association, Inc., Whiteface Inn, Lake Placid, N. Y.

September

25-29—Annual Meeting, American Transit Association, Hotel Biltmore, Los Angeles, Calif.

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Labor Developments in the Bus Industry

By PHILIP B. WILLAUER, Simpson and Curtin, Philadelphia, Pa.

Senate Hearings on H. R. 6000.

Last October the House of Representatives by an overwhelming majority passed H. R. 6000, the omnibus bill revising the existing Federal Social Security Law. This bill extends the coverage or benefits of the social security system to many employes not presently covered, increases the amounts of benefit payments very substantially, ups the annual earnings on which contributions must be paid and benefits are computed from $3,000 to $3,600, and provides for a contribution rate by employer and employe of 2% or a total of 4% on such earnings in 1951, to be increased to a combined or total percentage rate of of 5% in 1960, 6% in 1965 and 6½% in 1970.

As noted in the November issue of BUS TRANSPORTATION, the contribution rate established under H. R. 6000, combined with payments required under the CTA pension plan established at Chicago by an arbitration board, would result in a total payroll deduction in 1951 of 11½%, of which CTA would contribute 7% and the employes 4½%. Under the pension plan negotiated by Pittsburgh Railways, and Amalgamated Division 85 and effective in November, 1948, the Company pays 7½% and the employes each pay 3½%, or a combined total of 11%, of wages, for retirement purposes under that plan. In addition the Company and each employe under the present Social Security Law contributes 1½% of the first $3,000 of the annual earnings of each employe for old age benefits under that Law. Consequently, the combined deduction at Pittsburgh Railways today is 14% of payroll. Under H. R. 6000 this total deduction in 1951 would jump to 15%, in 1960 to 16%, in 1965 to 17%, and in 1970 to 18%.

Moving to a relatively smaller property, the pension plan at Indianapolis Railways calls for a company contribution of 4.76% and employe contribution of 2.92% of earnings. Social Security contributions bring this to 10.68%.

Amalgamated on the Job.

The Senate Finance Committee has for some time now been conducting hearings on H.R. 6000 and the problem of old age insurance generally in preparation for legislative action by the Senate this session. Due to the forthcoming November elections, definite action by the Senate can be anticipated prior thereto.

The Amalgamated has not only made its position on the proposed legislation clear, but also has outlined the ultimate objectives to be attained under such social security system. President Spradling and other Amalgamated officials appeared before the House Ways and Means Committee in the Spring of 1949 and urged adoption of H. R. 2893. The latter bill among other things would have made contributions and benefits payable upon the first $4,800 of annual earnings, would have computed benefits payable on the highest five years of earnings, and would have lowered the eligibility age from 65 to 60 years. Adoption was also urged of a provision for automatic coverage under social security of all employes of a state or political subdivision performing services in a proprietary activity such as employes of a municipally owned and operated transit system. H. R. 6000 only partially meets Amal's goals.

In February President Spradling and other officials of Amalgamated appeared before the Senate Finance Committee, the text of Mr. Spradling's testimony subsequently being published in the official publication of Amalgamated. The two-pronged nature of Amalgamated's pension drive appears from his statement to the Committee that: "It is also important that the basic provisions of the program be made adequate by an overhauling of the benefit structure and an upward revision of the benefits on a basis that will make such payments realistic in the light of present day needs. It must be recognized, however, that private pension plans will continue to exist and will play an important part in specific industries. . . ." Primary emphasis was directed, however, at the incomplete coverage of employes of municipally owned and operated transit systems under H. R. 6000. The latter, as pointed out in the November issue of BUS TRANSPORTATION, singles out employes of such municipal transit properties for preferred treatment by making them, with certain qualifications, covered employes in contrast to employes of all other forms of municipally owned and operated utilities who would not be covered were H. R. 6000 to become law.

It was made quite plain that Amalgamated desires full and automatic coverage of employes of municipally owned transit systems irrespective of when municipal ownership occurred, of when the employe first became an employe of the local transit system, and irrespective of an election by a State to bring employes of the State or of a political subdivision within the coverage of such law by Agreement between the state and Federal gov't.

Bus Industry Objectives.

The Amalgamated objectives are a matter of record. That they will be pursued unrelentingly is evident from the answer given by an Amalgamated elder statesman to his own rhetorical question, viz., "there is no end to the progress that the workers of this country can achieve through cooperative effort. There is no ultimate objective. We will keep moving on and on so long as our strength lasts . . . we will never be satisfied. Our struggle for the better things of life will ever continue."

One may be permitted the observation that strength and movement are subservient, at least for every careful navigator, to periodic directional bearings.

The latter is badly needed in the local bus industry today in the matter of pension and employe welfare programing. Industry generally, as in steel and automobiles, is effecting a tie-in of private pension and social security benefits and costs. In the bus industry where the shadow of ultimate public ownership is already falling upon private operations, the costs of utopian private pension plans and of an improved social security system are being pyramided. A sound and adequate Federal Social Security System is an absolute prerequisite to the solution of the security problem on the small and medium sized properties. Financial resources of ownership and employes alike on such properties permit no other realistic solution. Yet the addition of the costs of such governmental system to unrealistic pension plans on individual bus properties, pose grave problems, financial and other, for the latter.

(*Continued from page 74*)
increase orders for the eleven privately owned N. Y. C. bus companies persistently abrogated by the Board of Estimate, the Commission wrote: "Either the PSC must hold unquestioned power to fix the fares to be charged by private bus companies including the control of joint fares between private and public facilities or there will occur a consistent and steady lowering of the presently unsatisfactory standard of service to the public!"

The alternative? The Commission itself supplied the answer: expanded municipal ownership; or, in its own words: "...the gradual acquisition by the city of private companies until there results a wholly municipally owned and operated transportation system in the City of New York."

"The issue between extended municipal or continuing private ownership," the Commission continued, "is a question of policy, the determination of which is not within the province of this commission. Yet, at the same time we cannot disregard the obligation which rests upon us to lay before you a problem the solution of which is of vital importance to so many people in this state."

Three possibilities exist to remedy this muddled situation.

(1) A court ruling—now being sought in the Appellate Division—on which body (The N. Y. C. Board of Estimate or the PSC) has final jurisdiction over bus fares in N.Y.C.

(2) Legislative action revoking PSC authority with respect to privately owned N. Y. C. bus companies. Such a bill has been submitted;

(3) Repeal of the provisions of the N. Y. City Charter, Section 367, in which permission is granted the city to require "reasonable rates" as a condition for granting a franchise. The city has threatened to invoke this section should private companies attempt to increase fares to the levels authorized (8 cents) by the PSC.

Despite the flurry created by the Commission's report, Mayor O'Dwyer stuck to his previous position. On Mar. 13 he declared flatly that the "obligation, duty and responsibility" of fixing fares on privately owned lines in N. Y. C. rested with the city and not with the PSC. The Mayor reminded reporters of the July 1, 1949, action of the N. Y. Board of Transportation which fixed the 7-cent fares on city-owned buses and a 12-cent combined bus and subway fare. "That," said the Mayor, "is the policy with privately owned lines, too. But now comes the PSC questioning the right of the city to dictate the fares on the privately owned lines. That, of course, leaves two agencies attempting."

It left "two agencies attempting" and most New York City newspapers demanding an end to the confusion. "We think," said *The New York Times*, "the rate-making power should be kept there (with the PSC), and that the city should bow out of the fare-setting picture. It would thus save itself many a political headache. Justice requires an end to the double jeopardy. We urge the Legislature to make the law clear." *The Herald-Tribune* agreed: "... So long as the city administration balks fare adjustments, required to maintain and improve service on the private bus lines, the riders will have no relief...On the long term-issue of eliminating dual control, the state commission is, in our judgment, wholly right."

* * *

Meanwhile, there was a wage matter to be settled in the city's own backyard. A four-man fact-finding board, appointed by the Mayor, is currently studying the city's own transit operations with an eye to finding some means of meeting TWU contract demands (40 hour work week with no wage cut plus 21-cent hourly wage increases).

No conclusions have been reached at this writing. However, it was learned last month the board may come out with a finding that wage demands cannot be met without establishing a flat 10-cent fare on all city owned transit facilities.

The basic wage for the 40,000 employees on the city transit lines is $1.44 an hour. This is 6 cents an hour below the rate recently awarded by an arbitrator to employees of the Third Ave. Transit System and 11 cents below the rate for employees of the New York City Omnibus Corp. and the Fifth Ave. Coach Co. (also set by an arbitrator).

Latest report for the city's transit operations: deficit of $1,467,828 for the 6 months ending Dec. 31, 1949.

SF Purchase of Cable Cars Expected May 1

Sale of the California Street Cable Railroad to the San Francisco Municipal Railways is expected to go through May 1, its terms unchanged by stock transfers that briefly threatened to hinder the transaction. The line has been in the red for some time.

Last month, Myron Kunin, Los Angeles, caused a flurry of management resignations when he bought a block of stock, reportedly about 1500 shares, and obtained control of enough additional shares in the 10,000 total to swing the board of directors. The line's manager, John H. Campbell, and secretary, Clay Miller, were ousted from the board of directors and resigned from their management positions. W. W. Chapin, president, although retained on the board, also announced he would resign.

Protesting that the $150,000 approved by San Francisco voters for purchase of the railway was too little, the controlling group proposed to seek permission for a fare increase to 15 cents and continue the railway under private operation. Book value of the property is about $800,000.

Conditions of the sale imposed by the city require the line to retain responsibility for all debts, including accident claims.

Tax Relief Recommended By Nassau Transit Comm.

In a report on bus operations in Nassau County, N. Y., the Nassau County Transit Commission recommended to J. Russell Sprague, County Executive, that "Legislation be enacted relieving bus companies from paying state gross revenue taxes ... and from paying state gasoline and diesel fuel taxes."

The report, 15 months in the making, is the first comprehensive study ever made of bus service in the populous Long Island county and is intended to "advance competent bus transportation in the community."

Other recommendations made by the Commission in its 100-page report were the creation of a Board of Supervisors who would have power to grant franchises, prohibit parking on bus route streets. It was also suggested that the county be divided into zone areas and revision be made in present fare systems and zone limits.

Higher Taxes Are Threat To Ky., Texas Bus Men

Higher taxes, bad news for any bus operator, were aimed at bus men in Texas and Kentucky last month. In Texas, it was proposed that part of an additional $28,000,000 in state revenue be raised by increasing the state "omnibus tax" by 10 per cent. In Kentucky, a squabble over PSC vs. Division of Motor Transportation jurisdiction, that would empower cities to tax bus lines and taxis, got to the state Legislature.

The Texas Legislature approved the 10 per cent boost in the omnibus tax and it was put into effect March 1. Under that tax levy, originally enacted in 1941, motor carriers paid the state a 2.2 per cent tax on gross receipts from intrastate business. With the new increase they'll pay an estimated $116,000 by the end of August, 1951.

The omnibus tax applies, besides motor carriers, to carbon black, cement, sulphur, oil, gas, beer and liquor sales, autos, chain stores, cosmetics, stock transfers and playing cards.

Revision of motor transportation laws has been proposed in companion measures introduced in the Kentucky Legislature by Democratic floor leaders in both houses. One of the main provisions of the bills would be to take control of all buses and taxicabs from the PSC and give it to a new Depart-

ment of Motor Transportation. Under such a provision, cities would be given the power to tax bus lines. Such local levies are now prohibited. Originally, the provision called for a seat tax. That has been replaced by a plan to tax bus and taxi operators up to one-quarter of one cent per mile, but no tax could be collected on the bus miles traveled on state-maintained roads in cities.

John Bickley, president, Louisville Railway Company, said the new taxes would cost his company $70,436 for its 444 buses. The company now pays $22,645 a year on its motor-powered buses. Sixty trolley buses are not now affected.

The measure is also opposed by Thomas Ballantine, president of the Louisville Taxicab & Transfer Co. He said that he does not mind the tax portion, but wants control of driver licensing left to the city. He also said a $5,000 insurance proposal in the legislation is not sufficient.

"That might be adequate in Pikeville or some other small community, but not in Louisville," he said.

Roy Oswley, Louisville City consultant, said the city is "bitterly opposed to the measure." He said it will take away from the city its power to regulate bus routes, number of buses and cabs, determination of steps and the licensing of taxicab operators." Invasion of home rule, he declared.

[Ed. note—The bill passed the Legislature Mar. 9.]

Georgia Power Invites Bids on Atlanta System

Georgia Power Co., in compliance with an SEC order, has issued a prospectus for the sale of its Atlanta transportation system. Proposals for purchase of the system should be sent to C. B. McManus, president, by April 17. George Power has been ordered by the SEC to divest itself of its transportation holdings.

Sale and transfer is subject "to securing, in terms acceptable to the Georgia Power Co., the consent of the governing bodies of the cities of Atlanta, Decatur, Hapeville, East Point and College Park, and also subject to the approval of the Georgia PSC after a hearing. . . ."

Now consisting of all trolley or motor bus service, the system has an original cost value of $12,646,958, including a balance of $3,105,350 on the purchase of 257 trolley buses and 62 motor buses. Operating revenues for the past five years have averaged $9,000,000 a year.

Greyhound Net Income Off About $5,000,000 Last Year

The Greyhound Corporation, in a preliminary release of earnings issued in advance of the forthcoming annual report to stockholders, showed a consolidated net income last year of $11,503,279. This was equivalent, after preferred dividend requirements, to $1.22 a share on the 9,330,090 shares of common stock outstanding as of Dec. 31, 1949. It compares with a net of $16,127,753 for 1948, equivalent on the same basis to $1.70 a common share.

According to Orville S. Caesar, president, the decline in 1949 earnings was due mainly to a decline in passenger traffic and to prolonged strikes, higher wages and the full impact of depreciation charges on new buses purchased and buses rebuilt during 1948.

Youngstown Gross Receipts Tax Ruled Illegal

Youngstown's three per cent tax on gross revenue of the Youngstown Municipal Railway Co. has been ruled illegal by the Seventh District Court of Appeals. The Court upheld an earlier ruling by a common pleas court. Common pleas Judge Erskine Maiden, Jr., had granted a permanent injunction to the bus company, preventing collection of the tax.

Court action was brought by the transit company after City Council passed an ordinance Dec. 13 1948, levying the tax to get money to repair streets allegedly damaged by trolley buses. The city maintained that the bus company contributed nothing to street repair because trolley buses are exempt from the Ohio motor vehicle license law. The company held that the state already taxed gross receipts of trolley operations, pre-empting the field and prohibiting the city from levying an additional tax.

It was estimated that the tax would have produced about $50,000 annually. Mayor Charles P. Henderson had permitted the tax ordinance to become law without his signature, refusing to sign because he felt it was illegal. He said, however, that he approved the idea of requiring the bus firm to help maintain streets.

Hearings Held on Federal Highway Aid

Hearings were resumed Mar. 13 before the House Public Works Committee on Chairman William M. Whittington's bill authorizing $570 million a year of federal highway assistance. The figure is slightly higher than that requested by President Truman in Jan. ($500 million) but considerably lower than the $810 million recommended by the American Association of State Highway Officials.

Of the $570 million, the bill proposes that a portion—$70 million—be earmarked for the interstate system. This 40,000 mile trunkline network was authorized by Congress in 1944. 37,800 miles have so far been selected. The bill would allow a more liberal matching basis for these roads, 75 per cent federal money and 25 per cent state funds—an uprating from the present 50-50 ratio.

Out of the remaining $500 million, the states would get 45 per cent ($225 million) for the primary system, 30 per cent ($150 million) for the secondary and 25 per cent ($125 million) for the urban. These percentages are the same as those in effect under the present law.

Ger. Engineers Predict Ice-free Road Surface

Sand scattered on an icy highway may prevent skidding, but, say two enterprising German engineers, why bother with icy highways in the first place? The two men have come up with a recipe for a road surface which will make ice clad highways a thing of the past.

As reported in the "Foreign Commerce Weekly," the new highway coating consists of a mixture of concrete, residue from coal-mine dumps and certain chemicals. The latter are secret. Coal-mine residue figured in the mixture when it was noted by Herr Gessler, one of the inventors, that snow did not remain on the coal-residue dumps in the Ruhr district.

Using such residue, mixed with ordinary concrete and the secret chemicals, the team has devised the new road layer which is a porous, moisture-absorbent surface. Rain, which normally would form ice quickly in freezing temperature, seeps through the top coating to the layer underneath before it has time to turn to ice.

Experiments with the new road-surface material in laboratories and on an especially difficult stretch of highway in the Taunus Mountains have been "highly successful," the inventors say.

Song May Plug Fractional Coins

Juke box interests have joined the drive for a 2½ cent and 7½ cent coins. At the first national convention of the Music Operators of America last month in Chicago, 350 delegates unanimously endorsed a 5-point program to mobilize public opinion for fractional coins.

Outlined by Edward W. Mehren, chairman of the American Institute for Intermediate Coinage, the program includes the composition and recording of a song pointing out the reduction in cost of living that would be realized by production of a 7½ cent coin. The Institute claims that minting of fractional coins would permit pricing closer to value and would free $8,000,000,000 now overexpended on commodities and services.

N. J. Arbit. Bd. Ups PS Wages, Cuts Work Week

An arbitration board has awarded 13½-cent hourly wage increases plus a reduced work week—from 48 to 44 hours—to some 6700 Amalgamated employees of the New Jersey Public Service Coordinated Transport and the Public Service Interstate Transportation Companies.

Basis of the wage increase was 7-cents hourly retroactive to Nov. 1, 1949 and 6½-cents hourly effective June 1, 1950. Top pay for operators becomes $1.52¼ an hour, and, in June, $1.59 an hour. The 44-hour work week also becomes effective June 1. At the same time non-operating employees, heretofore mostly on a 44-hour week, will work a 40-hour week. The award also increased minimum pension allowances from $500 to $600 annually for employees becoming eligible for retirement after Nov. 1, 1949. Basis for pension payments will be the best five consecutive years in the last 10 years of the individual's service.

Despite this substantial increase in the company's operating expenses the New Jersey CIO renewed its demand for restoration of the 5-cent fare. Its demand followed publication of PS Transport consolidated net income statement for 1949 which showed approximately a 67 percent jump over 1948 returns. Figures were: 1949, consolidated net income, $2,070,222; 1948, consolidated net income, $1,240,646. The company's basic 7-cent fare (upheld Dec. 14, 1949 by the PUC) is under further consideration in the Superior Court. The PUC order was taken on appeal by the Attorney General to the state court, Jan. 13, 1950.

M. Herrington Buys Ford Bus Sales, Mfg. Rights

Marmon-Herrington Company has purchased the manufacturing and sales rights for Ford Motor Coaches. With the purchase, which will in no way affect production and sale of Marmon-Herrington Trolley buses, a new line of motor buses—"Marmon-Herrington Motor Coaches"—came into being.

Ford had been building buses since 1939 and recently (Feb. B.T., p.100) announced it would discontinue production to concentrate on cars and trucks.

Marmon-Herrington Motor Coaches, to be built in the 27-35 passenger range, will be marketed through the existing nation wide organization of independent dealers heretofore serving as the distribution outlet for Ford Metropolitan Motor Coaches.

The Ford Co. has estimated that 12,000 of its buses are now in use. The Marmon-Herrington plant will make parts and accessories for these units.

It was reported the company had a backlog of 200 orders for buses. (Deliveries were expected to start from Indianapolis by Apr. 1.)

Voters Pass Commission Rule for Seattle Transit

Seattle Transit System will continue under the commission form of management as a result of action by the voters Mar. 14. By a margin of 52,742 to 28,185 they approved an amendment to the city charter providing for a continuance of commission rule.

The Seattle Municipal League, Chamber of Commerce and other organizations, convinced the system would be best managed by a commission, had circulated petitions which won a place on the March ballot.

The amendment provides that the system shall be managed by an unpaid commission of five members, appointed for six-year terms by the mayor and subject to confirmation by the city council. The present commission consists of three members.

The commission form of management in Seattle was an outgrowth of an RFC loan for transit modernization secured by the City before the war. RFC had insisted that the transit system be operated by an independent commission.

CTA Seeks $20,000,000 For New Equipment

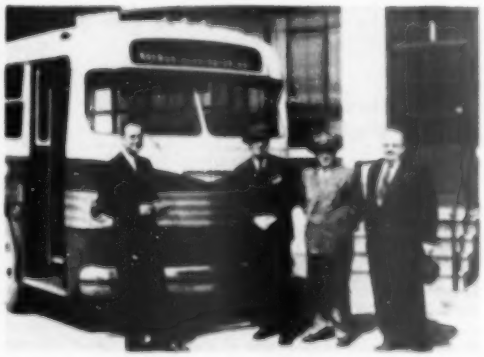
Next step in Chicago Transit Authority's modernization program will be the purchase of $20,000,000 worth of equipment—800 vehicles in all. On Mar. 13, CTA filed application for an RFC loan of $15,000,000, secured by trust certificates, towards the purchase of 300 trolley buses ($5,400,000), 300 all-metal elevated subway cars ($11,100,000) and 200 motor buses ($3,500,000). CTA plans to pay 25 percent down and finance the balance with the loan. In addition to the RFC application, CTA is continuing its search for private financing.

It was originally contemplated that CTA would finance its $150,000,000 10-year modernization program mainly out of current earnings. That is not possible presently "because of factors beyond our control," reports CTA. A total of $33,400,000 has already been spent for 1714 vehicles.

L.A. City Council Forces Rehearing on PE Bus Plan

Objections raised in Los Angeles City Council to the proposed modernization program of the Pacific Electric Co. (Mar. B.T., p. 72) were sufficient to cause the Los Angeles Board of Public Utilities to promise a reappraisal of its earlier action approving the large scale bus substitutions. A rehearing was held by the Board on Mar. 2.

A major bone of contention is the proposed abandonment of rail lines serving the San Fernando Valley area.



First to order a Marmon-Herrington Motor Coach, Stanley Miller (light suit), general manager, Indianapolis Transit Co., is joined by, l. to r., "Bus" MacCarthy, midwestern dealer; Col. A. W. Herrington, board chairman; Chas. Guernsey, vice president, of Marmon-Herrington Company.

OBITUARY

John A. Ritchie

A half-century career in urban transit was closed on March 16 when **John A. Ritchie** died while on vacation in Fort Lauderdale, Fla.

Mr. Ritchie, born in Halifax, N. S., 71 years ago, followed the "office-boy-to-board-chairman" route to the top so often found in the story of American business leadership. At 17, he was a freight pusher for the Illinois Central Railroad in Freeport, Ill. At the time of his death, he was chairman of the board of Fifth Avenue Coach Co., New York City Omnibus Corp., Chicago Motor Coach Co., Eighth Avenue Coach Corp., and Madison Ave. Coach Co.

His interest in the operational and accounting phases of transportation brought him in 1907 to the attention of Theodore P. Shonts, railroad president and former chief engineer of the Panama Canal, who later became president of the Interborough Rapid Transit Co. in New York. In 1918, Mr. Ritchie became president of the Fifth Avenue Coach Co., then an IRT subsidiary. Four years later he went to Chicago to operate the shakey Chicago Motor Coach Co. In 1924, he returned to New York and helped organize the Omnibus Corp., later to acquire control of Chicago Motor Coach, the Fifth Avenue Coach Co., and the New York Railways Corp., predecessor to New York Omnibus. Notably far-seeing in matters of transit operation, Mr. Ritchie was influential in substituting the motor bus and its flexibility for the street car in N. Y.

Mr. Ritchie's interest in the development of the motor bus involved him in the manufacturing end of the bus business from 1923 to 1928 when he was an officer and a director of the Yellow Coach Mfg. Co., and the Yellow Truck Coach Mfg. Co.

Mr. Ritchie was also a member of the Metropolitan Club, the New York Democratic Club and the New York Railroad Club. His widow, Mrs. G. D. Ritchie, survives.

There's going to a world transportation fair in **Los Angeles** sometime next year. All types of transportation from those of primitive man to present-day jet propulsion will be shown. General Manager Ira W. Curry reports that sponsors have leased a 236-acre site for the exposition . . . **Las Vegas-Tonopah-Reno Stage Line, Inc.**, has, with ICC approval, recently acquired certain operating rights and property of the Phoenix, Kingman and Boulder City Stages for $80,000 . . . 88 members of the **St. Louis Symphony Orchestra** recently wound-up a tour of 22 cities via 3 chartered buses . . . **IRC** trustees, John W. Van Allen and Henry W. Keitzel, have asked the New York PSC for permission to put buses on Buffalo's six remaining street car lines as soon as possible. . . .

* * *

St. Louis Public Service Co. has appointed 13 new radio supervisors and increased the number of radio car districts from four to ten. Change makes possible 24-hour supervision of every line in the system . . . **Metropolitan Lines, Inc.**, Phoenix, Ariz., plans curtailed night service on seven lines . . . **DSR**, to slash costs by $500,000, was reported planning to lay off one out of every ten of its salaried employees. 78 were due to be laid off last month . . . **Tiffin (O.) Public Service Co.** has been incorporated to operate city bus service in place of Port Clinton Coach Lines which discontinued service. Harold J. Rennpage heads the new firm.

* * *

Renewal of the wartime skip-stop system for buses and street cars on a limited scale is being considered by **Indianapolis Railway Inc.**, in an effort to increase operating efficiency . . . Buses of the **Youngstown Municipal Railway Co., Central Greyhound Lines** and **Warren Transportation Co.**, were used last month to carry about 10,000 high school students to the 5-day Industrial Exposition in the Stambaugh Auditorium . . . Residents of Torrence, Calif., vote Apr. 13 on the proposal to sell the **Torrence Municipal Bus Lines** to the "highest bidder" . . . **The Lake Worth (Fla.) City Council** has extended for three years the bus franchise held by the Lake Worth Coast Line Bus Co. . . .

* * *

Street car service over the Brooklyn (N. Y.) Bridge ceased last month. **The New York Board of Transportation** will, following reconstruction work on the span, operate buses over the route . . . Excessive taxes, coupled with declining revenues were given as the reason for the cessation of service of the **Hillsboro Bus System, Inc.** on Mar. 4. Operating several surburban routes in the Tampa, Fla., area, the company was incorporated in 1946 . . . **Jacksonville (Fla.) Coach Co.** became number 20 in the Transit Radio, Inc. network. Transit Radio now functions in 14 states and the District of Columbia . . . **Savannah (Ga.) Transit Co.** has asked PSC approval of cuts in night service on five lines and complete discontinuance of the Indian Street line . . . **Denver (Colo.) Tramway Corp.** has asked the PUC for permission to discontinue street car service on its Denver-Arvada-Leyden-North Golden line and replace it with buses. Tramway recently purchased 35 Marmon-Harrington trolley buses. . . .

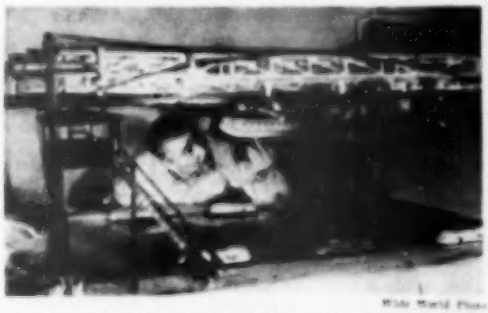
* * *

Arthur Griffin has purchased the **Baraboo (Wis.) Transit** line from **Transit Lines of Wisconsin**, a Chicago corporation . . . **The Washington, D. C. Transit Riders Association** have been denied a rehearing by the District PUC on the matter of transit radio broadcasts . . . **Oxford, (N. C.) Transportation Corporation** has shut down operations. Organized four years ago, it had lost money each year, according to R. M. Ray, Jr. . . . **Dallas (Tex.) Railway & Terminal Company** plans to replace buses on two more lines with trolley buses. Changeover will take place on completion of underpass . . . New owners of the **Sweetwater (Tex.) Bus Company** are Charles Wray and Mrs. Dorothy Glanton . . . Last year **Ottawa Transportation** Commission carried 56,120,621 passengers, an increase of 1,130,036 over 1948. . .

* * *

The Boston & Maine Railroad has asked the New Hampshire PSC for permission to abandon its passenger train service between Concord and Claremont, with the substitution of buses for the present two-a-day train schedule . . . **South Miami Coach Lines, Inc.**, has been granted a new 10-year franchise . . . The San Francisco City Planning Commission has authorized **DeLeuw, Cather & Co.** to draw preliminary plans for a Market Street subway . . . **"Making Work Human,"** a new book by Glen U. Cleeton, Dean of the Division of Humanistic and Social Studies at Carnegie Institute of Technology, was chosen "business book of the month" by Executive Books, Inc., for Feb. . . .

SHORT HAULS



Wide World Photo

An advocate of duo-rail transit, Alphonso Davino, L.A., recently demonstrated his scale working model to members of the California Assembly investigating committee on transit and traffic control. As a solution to Los Angeles' transit problems, Mr. Davino believes the duo-rail's 40-passenger cars would have several advantages over a mono-rail system. Less sway in the wind, he says.

FINANCIAL

AMARILLO (TEX.) BUS COMPANY reports a net profit of slightly more than $20,000 for 1949. Total revenue from fares, according to the statement, was $801,470 while operating expenses were $751,654, leaving a gross profit of $49,776. Other expenses of the company, including administrative salaries, totaled $38,856, leaving a net profit from operations of only $12,410. Besides fares other income of the company totaled $17,992. Total net profit was $30,382.56.

CANADIAN CAR & FOUNDRY CO., LTD., declared a dividend of 20 cents a share and 25 cents on Class "A" stock, both quarterly and payable Feb. 27 to shareholders of record Jan. 31.

CAPITAL TRANSIT CO., Wash., D. C.—Directors have declared a quarterly dividend of 50 cents a share on common stock, payable April 1 to stock of record March 13. This was the same rate as in the previous four quarters. The announcement stated that the current dividend was being made "out of undistributed earnings of prior years."

THE COMMUNITY TRACTION CO., Toledo, O., lost $134,349 in operating the transit system in 1949 according to the report of E. L. Grauwiler, city transit commissioner. The company revenues were $3,451,054. Operating expenses were $3,585,711. The $543,343 net income was turned into an operating loss, however, by taxes of $716,943 and depreciation of $561,872 on its equipment. During 1948, the firm reported a $92,522 operating loss.

DAYTON (O.) CITY RAILWAYS CO.—Net earnings in 1949 amounted to $277,641.33. $232,768.91 resulted from transit operations. It represented an income of $123,945.71 over the earnings of 1948, H. S. Mead, president, said.

Operating revenues were up $2,941,241.49 compared with $2,391,426.53 in 1948. Operating expenses totaled $2,652,492.97 last year, leaving a net operating income of $249,749.33.

Net income before appropriations for other expenses, including pension provisions, totaled $277,641.33, compared to $170,346.56 for 1948.

DENVER TRAMWAY CORP.—A net loss of $53,788 was incurred by the Corporation during 1949 as compared with a net loss of $36,583 in 1948. President W. A. Alexander stated a drop in traffic brought down gross revenue despite higher fares. Gross revenue for 1949 amounted to $7,243,458 compared with $7,345,598 in 1948. Traffic carried was down eight percent or 7,525,771 to a total of 86,594,843. The drop in gross revenue came despite a new ten-cent fare that was in effect during all of 1949 and six months of 1948. The previous fare was eight and a third cents.

Operating expenses were down $61,686 to $7,318,805 in spite of two wage increases of five cents and four cents

granted during 1949. The more favorable operating cost figures, the report said, were due to economies resulting from service adjustments due to reduced traffic and the company's modernization program which entails a complete changeover from rail to trolley and motor bus operation.

DENVER TRAMWAY CORP. has asked stockholders to approve a reduction of capital represented by common shares from $7,800,000 to $61,248. Stockholders were scheduled to vote on the proposal Mar. 21.

According to president W. A. Alexander, the move is being made to offset about $8,500,000 in undepreciated values of the city rail lines and related properties. These properties will become prematurely obsolete with completion of the modernization program, tentatively set for June 1—two and one-half years ahead of schedule.

Unchanged in the move will be the 197,181 shares of no par value first preferred stock, $10,197,100, and 421 shares of $100 par value preferred stock, $42,100.

INDIANAPOLIS RAILWAYS, INC. has reported a loss of $166,787 in 1949, in its annual report filed with the Indiana Public Service Commission. This compared with the reported loss of $211,903 for 1948. The report showed an unpaid federal income tax liability of $55,824 for 1941 to 1945 due to a recent audit of its books by the Internal Revenue Department and represents both tax and penalty. It has been charged against the company's earned surplus.

Meanwhile, PSC hearings have begun on a proposal whereby Indianapolis Railways would sell its Rockville Road line between Mount Jackson and Stop 6 to the Danville Bus Lines and parts of its West Washington Street-Morris Street and Drexel Gardens branch lines to Indianapolis Transit, Inc. These lines are outside the city, in Marion County. Indianapolis Railways recently was ordered by the PSC to economize by reducing its service to areas outside the city limits.

LOUISVILLE (KY.) RAILWAY COMPANY carried 14.87 percent fewer passengers last year than in 1948. A decline in riding began in the summer of 1948 and continued through 1949, according to a company report. Total passenger revenues in 1949 were $7,284,288, compared with $7,-723,911 in 1948—a drop of 6.35 percent. However, cost of maintenance and operation was reduced by 8.86 percent despite the June wage increase.

Thus the company was able to show an increase over 1948 in operating income—from $335,957 in 1948 to $348,892 last year. Net income decreased, however—from $255,-796 to $146,571. This was mainly because of $123,803 in income tax payments. None were owed in 1948, according to President J. M. Buckley because of past losses.

The company's 1948 capital deficit of $5,682,066 was pared last year to $5,230,451.

For the first time ever the company is operating without a bonded indebtedness. Now $1,737,000 has been deposited with the Louisville Trust Company, trustee for holders of the outstanding general mortgage 5 percent bonds due February 1. The bonds are the remaining portion of 1910 issue of $4,025,000.

MARKET STREET RAILWAY CO., San Francisco, Calif., has complied with the Securities and Exchange Commission recommendations to amend its plan for liquidation and dissolution. Approval of the amendment plan is pending.

On September 20, 1948, the SEC said it would approve the plan "if certain changes were made in the proposal" to settle the holding company's claims ($412,400) and modify other payment fees.

Under the amended plan, the company will pay Standard Gas and Electric Co. (holding company) $512,000 in settlement of its claim. Company would also sell its remaining office furniture and fixtures, dispose of all claims including actions for injuries and damages pending against it, dispose of claims for workmen's compensation and benefits, and distribute all remaining assets, on a pro rata basis to the holders of its prior preference stock.

Following approval of the amended plan by the SEC, the company will make a pro rata partial distribution of not less than $9 a share to holders of outstanding shares of prior preference stock.

In 1949 the company disposed of seventy-six actions seeking judgments totalling $1,147,994, at a cost to the company of $146,957, leaving fifty-nine actions to be disposed of in which total judgments sought amounted to $741,096.

Last year, the company reported a net loss of $211,250 compared with a deficit of $241,055 in 1948. Gross income of $24,554 resulted from interest on $1,000,000 United States Treasury notes owned by the company and $42,000 United States bonds deposited with the State Treasurer of California as a self insurer under the workmen's compensation laws.

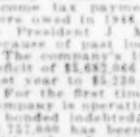
OMNIBUS CORP. — Earnings for 1949 approximated 50 cents a share on the common stock, after preferred dividends according to Benjamin Weintraub, president. This compares with 1948 net income of $144,255, equal to $3.94 a preferred share.

In a letter to stockholders it was emphasized that no dividends have been received from one of its three principal operating subsidiaries, New York City Omnibus Corp., because of the latters lengthy rate controversy with the city of New York. Omnibus Corp. is the largest stockholder in the New York City Omnibus, holding 226,950 common shares, or 45.72% of the total.

THE PACIFIC ELECTRIC RAILWAY CO., Los Angeles, for the year 1949, showed an operating loss of $849,932 as compared with an operating profit of $32,180 for the previous year, O. A. Smith, president, announced recently. Operating revenues for the year amounted to $31,027,937, a decrease from the previous year's $3,295,326. Operating expenses in 1949 were $32,-744,376, a decrease of $2,-279,687 as compared in 1948.

ST. LOUIS PUBLIC SERVICE COMPANY—The board of directors have declared a first quarter dividend of 12½ cents a share on common stock, the same as paid for the first quarter 1949. With 1,490,338 shares of stock outstanding, dividend payment totaled $186,292. 249 dividend payments were 50 cents a share.

THIRD AVENUE TRANSIT CORPORATION, now in bankruptcy, and its subsidiaries showed for 1949 a decrease of $1,504,007 in net operating loss before income deductions, compared with results for 1948. Operating loss for 1949 was $1,157,563, compared to a loss of $2,661,374 for 1948.



WORLD NEWS

Bureaus in London, Paris, Berlin, Moscow, Tokyo, Bombay, Melbourne, Rio de Janeiro, Buenos Aires. Correspondents in 45 other cities.

PARIS, FRANCE—*(Parties to the struggle for power in Europe — call them communists and noncommunists —vary the locale of their strife from month to month. Early in March the arena was, or seemed to be, Paris and that city's transit system.* BUS TRANSPORTATION *herewith presents a report from its Paris office.*—Ed)

Noncommunist bus and subway workers early last month balked a five-day all-out communist bid to halt the city's public transportation system. This was a clear warning that the Cominform could not count on local communists' ability to take over Paris communications.

But the communists nearly succeeded. They had things all their own way for the first two days (Mar. 6-7). Eighty percent of all personnel followed the communist lead and voted to strike for a $8.50 across-the-board bonus. Monday and Tuesday bus and subway service was pinched to a trickle. Only 95 buses out of 2500 ran and these under heavy police escort.

Army trucks were mobilized to maintain skeleton service but failed to ease the situation appreciably. About twenty trains on the seven subway lines were operated jerkily at twenty minute intervals. Boulevards jammed curb to curb, plodding pedestrians, teetering bicycles and honking private cars reminded Parisians of the 1940 flight from the Germans. Monster traffic jams clogged key thoroughfares far into the night.

Following the two-day tie-up, the autonomous publicly owned Paris Transport Co. offered a tardy compromise five percent general monthly wage increase with smallest raise to be not less than $3.00 monthly plus liberalization of the retirement plan. Noncommunist unions snapped up the offer. Communist workers screamed "scabs," "traitors," held out sullenly three more days and then straggled back. Top communist leaders were, it was reported, secretly relieved to call truce. Reason: strike hit carless working class hardest, forced many workers to lose precious working time. Communist rank and file in other industries grumbled loudest at the inconvenience.

The company succeeded in squeezing out funds to cover the raise from assets without resorting to borrowing or fare increases. Total cost of the increases will be about 750,000,000 francs or about $2,100,000. Directors of the company expressed satisfaction over the outcome. They admitted workers deserved the raise since semi-official studies indicated that real wages of transport workers are about 25 percent below pre-war level.

Wide World Photo

Army Trucks Were Used in Paris Transport Strike

IN THE STATE LEGISLATURES

GEORGIA—The General Assembly has passed a law tightening the regulations on the powers of the Public Service Commission to issue certificates of convenience and necessity to motor carriers to avoid duplicating routes. A protective measure for an existing carrier, it specifies that no certificate can be issued to a new carrier over an existing route unless service is inadequate, and even when the existing carrier must be heard and allowed to make corrections if any are found needed.

IDAHO—A bill to replace Idaho's present three-member State Public Utilities Commission with a single commissioner has been introduced in the Idaho Legislature by the State Senate state affairs committee. Under terms of the bill, which was recommended by an interim state governmental reorganization committee, the salary of the single commission would be fixed at $6,500. At present, each commissioner receives $4,500. The proposed single commissioner would serve for six years.

KENTUCKY—The General Assembly has been asked to provide for State transportation of school children. Senator George R. Overby proposed in a Senate bill he introduced to create a division of school transportation to supervise the program.

The division would operate the system, buy the buses and collect the cost of operation from the School Districts on the basis of a passenger-mile charge. Local School Districts now operate their own buses.

If the bill is enacted no School District could operate its own transportation system after July 1 of next year.

MASS.—A proposed $80,000,000 toll superhighway across Massachusetts would be "economically unsound and financially unwise," according to a report filed by a state legislative interim commission. Such a toll road had been proposed as the Massachusetts link in a system of similar highways running from Maine through Pennsylvania.

Headed by House Speaker Thomas P. O'Neill, Jr., Cambridge Democrat, the study commission said it would require traffic of 15,000 cars a day to pay for the proposed Massachusetts toll road with tolls of $1. A survey showed this figure probably wouldn't be reached until 1976.

The commission reported it spent only $26,000 of the $150,000 appropriation granted it by the 1949 State Legislature to study the project's feasibility.

MISSOURI—An intensive campaign to win approval of a 2-cent boost in Missouri's gasoline tax at the special referendum election scheduled for April 4 was conducted by the Better Roads Committee of Missouri, which has organized with headquarters in Jefferson City.

Backed by Gov. Forrest Smith, legislation increasing the Missouri gas tax from 2 to 4 cents a gallon, to provide additional road construction revenue, was enacted by the 1949 State Legislature. After referendum petitions to halt the tax boost were filed last fall by opponents, including the State Bus and Truck Association, the Missouri Automobile Club, the State Petroleum Industries Association, the State Petroleum Association, the State Legislature called a special election for April 4.

NEW MEXICO — Possibility that the Legislature next year "may be able" to reduce the state's 2-cent gasoline tax rate by ½ cent has been suggested by Gov. Thomas J. Mabry. The governor's views were expressed as the State Finance Board authorized the State Highway Department to reduce its bonded indebtedness by $1,000,000 from a surplus built up under the 2-cent gasoline tax increase enacted by the 1949 Legislature.

NEW YORK—Bills providing for state highway bonds totaling $160,000,000 and the gradual elimination of highway fund diversion have been introduced in the New York State Legislature by Senator Thomas F. Campbell of Schenectady and Assemblyman John F. Burnham of Ft. Plain.

The proposed legislation was designed to carry out a plan launched by the New York Good Roads Association, headed by Charles H. Sells, former state superintendent of public works, to provide for annual state highway expenditures of $175,000,000 from 1952 through 1960. "These measures," a statement by their sponsors declared, "will accomplish all rural road improvements proposed by the Erwin Commission, build the Buffalo-New York Thruway as recommended by the governor."

A bill to exempt bus companies from the gross income tax levied by New York State at the rate of 2 percent on the income of public utilities has been introduced.

TERMINALS AND SHOPS

OPENINGS

Redding, Calif.—Bus Station, Continental Pacific Trailways. The Trailways Accordion Band from Medford, Oregon, was on hand for the opening.

Shelby, Tenn.—Bus Station, Queen City Trailways. The company has also recently opened new terminals in Hickory and Elizabethton, Tenn.

Providence, R. I.—A new interurban bus lines' terminal has been located on Dyer St. from Westminster St. to Exchange Street. Site replaces the former terminal location at the rear of the old Post Office Building in Memorial Square. Lines using the terminal are: New England Transportation Co., I.C.T. and the Short Line, Inc.

TERMINALS PLANNED

Ottawa, Can.—Bus Station, Colonial Coach Lines. Location: Albert Street. A building permit has been issued for the construction of an $80,000 terminal and restaurant. May 15 has been set for completion of the work.

Huntington, W. Va.—Bus Station, Atlantic Greyhound Corp. The building will be Atlantic's major construction item for 1951.

Lynchburg, Va.—The Retail Merchants Association has adopted a resolution urging City Council to use every effort to provide Lynchburg with a union bus terminal. The city's two principal interurban bus systems now use separate terminals. Efforts in the past to have them share a single station have been unsuccessful.

TERMINAL DAMAGES

Tacoma, Wash.—Garage of the Tacoma Transit Co. was damaged by fire recently to the extent of $150,000 with an additional $41,000 damage to four buses and $75,000 damage to tools. Construction of a new garage has been under construction and the fire is expected to give impetus to these plans.

Monteagle, Tenn. — The Monteagle Hotel and the adjoining Southeastern Greyhound Lines bus station were destroyed by fire Mar. 1. Estimated loss: $200,000.

Some 25,000 residents of Phoenix, recently had a look at and, if they were so inclined, a bite of Pacific Greyhound's new $750,000 terminal which opened with a party.

PGL's calendar girl cut the cake, baked in the shape of the terminal, with F. W. Ackerman, p., and W. E. Travis, board chairman. Colorful murals, r., decorate the walls.

LEGAL DECISIONS

THE ARKANSAS PUBLIC SERVICE COMMISSION has revoked an order it issued in December restricting the movement of charter buses.

The original order provided that all charter movements must originate on, or within 10 miles of the carrier's authorized route. The new order provides that any carrier may handle charter coach movements originating and destined for any point.

In its revocation order, the commission said that larger and some medium-sized carriers generally favor the restriction, while the smaller operators oppose it. The latter, it was noted, "depend heavily upon charter coach movements to supplement small revenue from their less expensive regular operations."

Strict enforcement of the original order, the commission said, would have worked harshly on the smaller operators, some of whom have invested substantial amounts of money in charter equipment.

THE KENTUCKY COURT OF APPEALS has ruled that a union of Louisville Railway Company employees, members of which quit the C.I.O. Transport Workers Union (Sept. '49), is entitled to have dues checked off by the company. Jefferson Circuit Judge Field had previously ruled in favor of the Louisville Area Transport Workers Union. Since the action started, the union has affiliated with the independent Brotherhood of Railway Trainmen.

KENTUCKY COURT OF APPEALS has ruled that passengers standing on a bus or common carrier should brace themselves for ordinary jolts in transit.

The ruling set aside a $17,500 judgment awarded Mrs. Anna Mae Chumley against Southeastern Greyhound Lines. Mrs. Chumley, who fell and was injured while standing in the aisle of a bus on Aug. 10, 1947, en route from Mountain City, Tenn., to Middlesboro, Ky., Mrs. Chumley sought $18,000 in her suit in Circuit Court.

The Court of Appeals ruled: "For the courts to hold that a common carrier could accept a passenger after all seats are filled when she was willing to stand rather than not be carried at all and then be liable for jerks and jolts incident to normal and ordinary operation would be to impose too strict a rule of liability and an unjust burden."

MILWAUKEE (WIS.) TRANSPORT CO. has filed a suit challenging the validity of four city ordinances boosting license fees for the operation of trolley buses. A complaint served on the city clerk asked the circuit court to decide whether the ordinances are valid and asked for an order restraining the city from enforcing the measures if they are not valid.

The ordinances, passed Jan. 26 by the council, raised trolley bus fees on four lines from $112.50 per bus per year to $661.83 on the North Ave. line; $685.42 on the 35th St. and W. Mitchell St. lines and $906 on the N. Holton St. line.

Under the ordinances, the Transport Co. was required to post 1950 license certificates in the trolley buses by Mar. 15. In its complaint, the company pointed out that it could be fined as much as $3,800 a day after Mar. 15 for operation of the 152 buses on the four lines.

The company has refused to pay the higher fees. In December it sent the city a check for all 1950 license fees at the old rate. The city has refused to cash the check on the ground that it might prejudice its rights to get the higher fees. The city has threatened to take the company to court if it did not comply with the ordinances.

Last year the two parties had asked the state public service commission to set a proper fee, but the commission refused to take jurisdiction.

OHIO—A real estate tax on municipally owned and operated functions such as golf courses, waterworks, light plants, parking lots, etc., edged closer to reality under a ruling by the state supreme court on Mar. 1. In a 4 to 3 decision, Ohio's highest court held Cleveland's Stadium, and adjoining park lots, is subject to real estate taxation. In the opinion of the majority of the court's members the city operates the Stadium, home of the Cleveland professional baseball and football teams, in a proprietary capacity rather than as a function of government.

The suit was instituted about two years ago by a Cuyahoga County Auditor. Immediately upon receipt of the court's decision, the auditor announced plans for a survey of other publicly-owned properties in the county looking toward placing them on the tax duplicate.

The decision by the Ohio supreme court may influence decision in two similar cases now pending in the Franklin County (Columbus) courts. One would make all city proprietary functions subject to taxation, and the other one would make all city-owned transit lines pay the same vehicle tax as private Cos.

MONTREAL TRAMWAYS CO., in its litigation with the City of Montreal concerning the city's claim for $4.5 millions in arrears on payments for use of the streets, has failed in its contention in Superior Court that the Montreal Tramways Commission, not the Superior Court, had jurisdiction in the matter. Mr. Justice A. T. Smith in his judgment held that although the Tramways Commission had control over administration on the transportation system, it had no say in determining the rights of the parties under the contract between the city and the Co.

The city claims that the company owes it money for years in the 1934-47 period in which the annual $500,000 bill for use of city streets was not paid. Company claims that the payment is due only in years in which it is earned. It says that under the contract, operating expenses and taxes, special maintenance fund and stated return on the capital value and working capital must be met before the city gets paid.

CIRCUIT JUDGE HERMAN W. SACHTJEN, Madison, Wis., has upheld an appeal by the Madison Bus Co. and ruled that the Wisconsin PSC take further testimony on its Nov. 1948 order requiring improvements in local bus service. The company had asked both the PSC and the city of Madison to show cause why the order should not be sent for review, claiming previous testimony was "completely inadequate." (Mar. B. T., p. 71).

No date has been set for the new hearings.

PERSONALS

BELOIT (WIS.) BUS COMPANY, INC., has changed officers. L. D. Gale remains as president and general manager and A. P. Gale remains as treasurer. Mr. R. E. Borkenhagen, formerly secretary and maintenance superintendent of the company, has been promoted to vice president and superintendent, and Miss Nancy I. Gharrity, formerly clerk for the company, has been promoted to secretary and assistant superintendent, and superintendent of safety and personnel.

JOHN H. BICKLEY, president; Robert Alexander and J. W. Leake, vice presidents; Charles A. Heuser, treasurer; and Russell C. Mayhall, secretary—directors and officers of the Louisville (Ky.) Railway Company were re-elected at the annual meeting of stockholders.

BOISE (IDA.)-WINNEMUCCA STAGES, INC.—Controlling stock has been acquired by Adolfo J. Achabal from J. B. Dollard, R. B. Kading, E. D. Baird and R. R. West. New management of the company will be: A. J. Achabal, president; C. F. Branting, general manager; J. A. de Ojeda, auditor-traffic mgr.

J. L. BROWN has been retired after 45 years with the Dallas (Tex.) Railway & Terminal Co. For the past 38 years he has been superintendent of railway equipment. L. W. Hunt, vice president, presented Mr. Brown with a shotgun, a gift from fellow workers. George Tongue succeeds Brown with the new title of superintendent of maint. and construction.

PAT M. BURDETT, city manager of Ashville, N. C., has resigned to become treasurer of the White Transportation Co., which has recently begun operations there.

Harry Dooley

Scott Holtzlander

HARRY DOOLEY, president of Gray Line Sight-seeing Companies Associated, recently expressed the belief that the experience Americans have gained through utilization of improved transportation facilities and more leisure time for traveling is helping to unify the nation. In a signed article in the March "American Magazine," Mr. Dooley wrote:

"We are developing a larger understanding of our fellow Americans and a greater pride in being able to identify ourselves with the nation as a whole. We are learning to work together—whether we live in the coal fields of West Virginia, in the wheat fields of Nebraska, or the cotton fields of Georgia—all contributing to our mutual strength, happiness and prosperity."

"FIFTY YEARS OF HIGHWAY TRANSPORTATION PROGRESS" is the theme of the Third Highway Transportation Congress which will be held in Washington's Hotel Mayflower, April 25, 26 and 27. The keynote address by N.H.U.C.'s Chair-

man Albert Bradley, executive vice president of General Motors, will examine highway transportation's opportunities as it begins a second half century of service to the American public. Other speakers announced include Lee R. Jackson, president of the Firestone Tire and Rubber Co., who will speak on "Highway Transportation of Tomorrow," and Dr. J. O. Christianson, Minnesota civic leader, educator and agriculturist, whose topic will be, "The Roads Americans Travel."

JOHN FLEMING, director of purchases and stores and assistant secretary of Capital Transit Company, Wash., D. C., retired Feb. 28. He had a record of more than 56 years of continuous service with Capital Transit and its predecessor companies to his credit.

HAROLD H. GEISSENHEIMER, a recent graduate of New York Univ., has joined the Montour (Pa.) Motor Coach Lines as assistant manager. While at NYU, he took special studies in city transit with ATA.

Montour Motor Coach Lines is a 20-bus suburban operation serving in the Pittsburgh area.

HERMAN E. HICKS has retired as vice president of the Rochester (N. Y.) Transit Corporation after 56 years of service in the field of public transportation. For the past three years he has been an assistant to the president of the company. For 40 years, from 1907 to 1947, all city buses ran on schedules he drew up. He often was called in by other transportation companies to aid in their scheduling problems.

SCOTT L. HOLTZLANDER, an official of Greyhound Lines for a quarter of a century, retired Feb. 1 as assistant treasurer of The Greyhound Corporation and Greyhound's resident corporate agent at Wilmington, Del. Named assistant treasurer May 1, 1940, Mr. Holtzlander succeeded the late C. A. Steen as the corporation's resident Delaware official. As a Delaware corporation Greyhound is required to designate a resident corporate agent. With Mr. Holtzlander's retirement the corporation named a corporate trust company of Wilmington to function in this capacity.

Mr. and Mrs. Holtzlander will continue to reside in Wilmington, where their two sons and daughter live. "Scotty" Holtzlander, who observed his 77th birthday Jan. 27, was a friend and associate of the founders of Greyhound Lines at Hibbing, Minn., and in 1925 cast his lot with the growing bus industry. He formerly was treasurer of the Safety Motor Coach Lines, the Motor Transit Corporation, the Greyhound Management Co. and Central Greyhound Lines.

W. E. JONES has been named to the newly-created post of vice president - operations with Southeastern Greyhound Lines. He will be in charge of the SEG system operating department, covering transportation and maintenance, and including safety and purchasing.

Mr. Jones, employed by Southeastern Greyhound Lines in 1931, has served that company as vice president since April, 1948. Prior to that date he held positions of executive assistant to the president, general manager—Lines North, regional manager at Nashville, and assistant general traffic manager.

JAMES H. McGRAW, JR., resigned Feb. 24 as president and chairman of the board of the McGraw-Hill Publishing Co., Inc. His brother, **Curtis W. McGraw**, was elected to fill both posts.

James McGraw also announced his resignation from all other offices in the McGraw-Hill subsidiary companies.

At a meeting of the board, Willard Chevalier was appointed executive vice-president of the publishing firm, a newly created position. Joseph A. Gerardi was elected treasurer, the position held until then by Curtis McGraw.

RANDOLPH M. MARTIN, who left the Vancouver city engineer's department in 1941 after 20 years service to join the British Columbia Electric transportation department, is returning to civic employ as assistant city engineer. Mr. Martin, BCE transportation engineer and one of the key figures behind BCE's postwar transit conversion program, joined the company as chief transportation clerk under vice-president R. W. Arnott. He was appointed BCE transit research engineer in 1946, and two years later was appointed director of research, planning and scheduling for BCE and Pacific Stage Lines, subsequently becoming transportation engineer.

EVERETT F. MERRILL, city manager, of Worcester, Mass., has resigned as a director of the Worcester Street Railway Co. and Sherwin T. Borden, manager of the Worcester store of Sears Roebuck & Co., has been chosen to succeed him. Mr. Merrill, who asked that his resignation be effective immediately, stressed the fact that there was no immediate issue which occasioned his action. He said during his service as director he has enjoyed the mutual confidence and respect of both labor and management.

OHIO TRANSIT ADVERTISING, INC., 50 W. Broad St., Columbus, O., has been incorporated, and has acquired the transit advertising franchise formerly operated by American Transit Advertising of Indianapolis. Officers of the new firm include Rodger K. Evans, president; Miss Margaret Reid, vice president; and Miss Kathleen Hannum, secretary-treasurer. Advertising franchises operated by the company include the transit systems of the Columbus Transit Co., Zanesville Rapid Transit, City Rapid Transit of Newark, Mansfield Rapid Transit, and Sandusky Rapid Transit.

RICHARD K. REED, Oakland, Calif., has been appointed manager of the Vancouver-Portland Bus Co., a subsidiary of Western Transit System, Inc., of San Diego. Under his direction will be bus service between Vancouver, Wash., and Portland, Ore. He has been manager of the Gray Line at Oakland. He succeeds Walter Claiborne, long associated with the Vancouver-Portland Bus Company and its predecessors.

HARRY REID, president, Indianapolis Railways, Inc., has announced he will resign at the annual meeting of the company on April 27.

PARTIAL LIST OF CERTIFICATES ISSUED DURING MARCH

Carrier(s)	Route	Miles
Illinois		
Lawrenceville Transit Lines	Local Line—Lawrenceville	.....
Kansas		
Inter City Bus Lines, Inc.	Rt. 50A of, and Santa Fe Road, Overland Park to Jcts. of Binnies and Johnson Drive, to State Line	.....
Louisiana		
Jubon, L.	Cumile Bridge to Baton Rouge	.....
New York		
Albany-Castleton Bus Co., Inc.	Rt. Castleton to Rensselaer via Brookview	.....
Syracuse Transit Corp.*	Rt. Syracuse to Minoa	1.0
North Carolina		
Rose Trailways, Co.	La Grange to Camp Le Jeune	.....
Ohio		
Schitz Bus Co.	Columbus to River Station	.....
Border Coach Lines	Lisbon to Salem	10.0
Oklahoma		
P & D Bus Lines	Okmulgee to Eufaula	31.0
Texas		
Hazel A. G.*	Local Line—Arlington	.....
Hunter, C. E.	Local Line—Oakland	.....
Terry, R. L.	Big Springs to Snyder	.....

*Temporary authority granted.

Surrounded by friends, Frank J. Noll (fourth from right) president, Somerset (N. J.) Bus Co., recently officiated at the company's 25th anniversary party in Springfield, N. J.

When Portland (Ore.) Traction Co. became an all-bus operation (Feb. 26) nostalgic citizens turned out for the customary last ride and souvenir hunt aboard the streetcars.

A past president of the American Transit Association, Mr. Reid has served as president of the Indianapolis firm for nine years. It was learned last month that he will devote his time to other companies with which he is associated. Among them are Reid, Carlin & Co., Inc., an advertising agency. He will not be a candidate for reelection as a director of Indianapolis Railways.

HENRY E. REYNOLDS, president of the Reynolds Transfer & Storage Co., former city councilman and a candidate for one of three council terms which expire this month, has resigned from the board of directors of the Madison (Wis.) Bus Co. The board accepted the resignation, but deferred election of his successor. Mr. Reynolds had served on the board a little more than 6 months.

THOMAS F. RIEDY, general manager of the United Traction Company, has been elected to the board of directors of the Albany (N. Y.) Chamber of Commerce.

THE TORONTO TRANSPORTATION COMMISSION has appointed Harry E. Pettet, formerly assistant secretary, as secretary to the Commission and C. H. Clancy as advertising and publicity executive, with P. L. Baker as public relations executive and assistant to the secretary. The latter two have been with the Commission for several years.

PRESIDENT TRUMAN has sent to the Senate the nomination of Commissioner Richard F. Mitchell for reappointment as an Interstate Commerce Commissioner for a term expiring December 31, 1956, and the nomination of James K. Knudson to fill the unexpired term of the late Commissioner Miller, expiring December 31, 1953.

Commissioner Mitchell was appointed by President Truman on January 8, 1947, to fill the unexpired term of the late Commissioner Porter, expiring December 31, 1949. He took office as Commissioner February 10, 1947.

Mr. Knudson is principal attorney in the office of the Solicitor, U. S. Department of Agriculture, in charge of transportation litigation, and has generally been referred to as commerce counsel for the department.

Z. L. TURNER, Paris (Tex.) bus terminal manager for ten years, has become manager of the Union Bus Terminal, E. Fannin at S. Columbus, Marshall, Tex., succeeding Ray Musser.

A. W. Dunn and G. E. Byrne, partners in operation of the terminal for the past five years, announced engagement of Mr. Turner as manager under a five-year lease arrangement.

Mr. Turner has operated the Continental Dixie Bus Lines terminal in Paris since 1939. Prior to that he was terminal manager for the Trailway Bus Terminal in Dallas, and previously he was an employe of the Missouri-Pacific Bus Lines.

TWIN CITY RAPID TRANSIT CO stockholders met March 13 at the company's offices at 1 S. Eleventh street to elect nine members to the board of directors. The present board of directors named during 1949 to replace directors who resigned, was nominated by management for reelection. Included were: Charles Green, president, Bingham D. Ehlen, Detroit, Mich., chairman of the board, and Fred A. Ossanna, general counsel for three year terms.

Nominated for two-year terms were D. Robertson, Paul H. Lambert, St. Paul, and Phillip W. Fitzpatrick, vice president.

Nominated for one-year terms were James A. Gibb, executive vice president, Alfred Sobol, New York, N. Y., and Arnold J. Boldt, Davenport, Iowa.

No opposition to the management slate was indicated.

J. EARLE WOODING, president of ABC Coach Lines, has been appointed chairman of the National Policies Committee of the Fort Wayne, Ind., Chamber of Commerce for 1950. The committee's purpose is to encourage more active participation by business people in governmental affairs.

LESTER P. WAKEFIELD has been elected president of the Jefferson Transportation Co., of Minneapolis, one of the pioneer long-distance bus firms in Minnesota. He succeeds Edgar F. Zelle, who was named board chairman and treasurer. Also elected were: Louis N. Zelle, vice president; Margaret E. Paul, secretary; Arnold E. Peters, assistant treasurer, and Elarnor C. Newman, assistant secretary.

Mr. Wakefield started with the firm as bookkeeper 25 years ago when Mr. Zelle bought control of the company which had been formed in 1919. He was elected treasurer in 1936.

The Jefferson firm operates 1,520 miles of bus lines on two main routes south of the Twin Cities serving 135 towns and cities in Minnesota, Iowa and Missouri.

OBITUARIES

FREDERIC M. MENG, 58, Branford, Conn., a vice president and manager of the Connecticut Co., bus transportation utility, died in his home in Branford, February 17. Mr. Meng was an authority on racing pigeons, a former president of the American Racing Pigeon Union. He had served often as a judge at national pigeon shows.

ERNEST E. PETERSON, 75, retired comptroller for the Chicago (Ill.) Motor Coach Co., and also formerly auditor for the Yellow Coach Manufacturing Co. of Chicago, died in Cincinnati Jan. 18.

OLIN POLLOCK, 56, personnel director of the St. Louis County Transit Company, died February 25. He had been with the transit firm for 16 years and previously worked for 17 years with the American Auto Insurance Company.

GEORGE VUKOVICH, president of Northwestern Motor Bus Company died on January 9, 1950. He was a pioneer in the Michigan bus industry, and a long time member of the Michigan Motor Bus Association. His bus operations were first established in 1919, under the name of Bessemer Taxi Co. with headquarters at Bessemer. In 1926 the firm name was changed to Northwestern Motor Bus Co., and the Ironwood headquarters were established in 1931.

NEWS FROM THE MANUFACTURERS

AMERICAN BRAKE SHOE COMPANY has consolidated all operations of its Canadian subsidiaries into one corporation, the Dominion Brake Shoe Company, Ltd., a wholly owned subsidiary. The operating assets and business of Joliette Steel Limited and Ramapo of Canada, Ltd., were acquired by Dominion Brake Shoe Company, Ltd.

With this consolidation, Dominion Brake Shoe will operate all of the Canadian plants of the parent company through five divisions. These operating divisions will be the Brake Shoe Division, Joliette Steel Division, Canadian Ramapo Division, American Brakeblok Division, and Kellogg Division.

Dominion Brake Shoe Company, Ltd., will make its principal office at 1405 Peel Street, Montreal, P.Q., Canada. It will continue to operate plants located at Lindsay, Niagara Falls and St. Thomas, Ont., and Joliette, Que.

ARMSTRONG CORK COMPANY reports net earning in 1949 of $10,224,215 after taxes on total net sales of

$163,323,948. Net earning for 1949 amounted to 6.3 cents on the sales dollar. The 1949 profits compare with net profits of $11,567,524 for 1948 on a sales volume of $173,088,849. Earnings on the common stock during 1949, on the basis of the income of domestic companies only and after deducting dividends paid on the preferred stock, were $6.57 per share as against $7.54 in 1948.

AMERICAN HAMMERED PISTON RING Department of Koppers Company, Inc., has produced a new sound-slide film which graphically shows points which the repairman should check when reconditioning an engine. It will be shown at dealer and jobber meetings throughout the country during the year.

The sound-slide film consists of a review of engine repair, and is designed to be followed by a panel discussion. At such discussions a jobber, shop foreman, a fleet operator, a leading independent repairman of the area, and a Koppers Company factory representative will discuss additional topics and answer questions.

ELECTRIC SERVICE MANUFACTURING COMPANY has announced the appointment of Walter S. Knodle as district manager in the Detroit area with headquarters at the General Motors Building. Mr. Knodle was formerly a representative for the company in Ohio. Assigned as assistant in the Detroit area is Glenn R. Smith who moves from the Philadelphia Office. Both men have already become active in their new capacities.

EUTECTIC WELDING ALLOYS CORP., because of the increasing interest in the new techniques of welding with Eutectic Low Temperature Welding Alloys, has announced the formation of another training course for the Spring. Classes will be held at the New Eutectic Welding Institute in Flushing, Long Island, twenty-five minutes from New York City.

The course is designed to give practical experience in arc and torch welding with Eutectic Low Temperature Welding Alloys. During the five days duration of the course (Monday through Friday) each student is given instruction on the most popular EutecRods and EutecTrodes. In addition, a program of films and lectures gives the student a workable background of theory on the newest developments in low heat welding. Not designed to teach the fundamental of conventional types of welding, the course is meant to show experienced welders how to use the new developments, techniques, and applications of the Low Temperature Alloys produced by Eutectic.

GENERAL ELECTRIC has established a new apparatus sales district, twelfth in the nationwide G-E Apparatus Department sales system, effective March 1. G. F. Maughmer, formerly manager of the G-E sales office at Los Angeles, has been appointed to head the new organization, which will have its headquarters at St. Louis. The new district consists of all sales areas presently in the company's St. Louis, Kansas City and Omaha territories.

GENERAL MOTORS CORP. has reported record earnings for 1949 amounting to $656,434,232, equal to $14.64 each on the 44,104,540 shares of common stock outstanding. 1949 earnings were 49 percent over the 1948 figure, the previous peak. Sales increased 21 per cent, from $4,701,770,340 in 1948, to $5,700,835,141 in 1949.

THE B. F. GOODRICH COMPANY reports a decline of 7.6 percent in the sales from the previous year. Net sales amounted to $387,918,386 compared with $419,798,703 in 1948. After provision for all charges, including taxes and depreciation and after providing reserves of $4,000,000 for increased replacement cost of facilities, and $1,000,000 for foreign losses and other contingencies, net income amounted to $20,935,738, or $14.36 per share of common stock outstanding after deducting the regular $5.00 dividend on preferred shares. The corresponding net income for 1948 was $23,740,705, which amounted to $16.57 per common share, after reserves of $8,000,000.

Dividends paid during the year were $5.00 per share on preferred stock, and $5.50 per share on common stock. The latter amount included an additional dividend of $1.50 at the year-end.

NORMAN HILL has been appointed as manager of service product sales, with headquarters in Bristol, Connecticut, for the General Motors Corporation. In his new capacity, Mr. Hill will coordinate the activities of the New Departure division with that of its service organization, United Motors Service, for the distribution of New Departure Ball Bearings. This activity also includes Halson work with the 50 industrial distributors authorized by United Motors Service.

He has been identified with the New Departure sales department since February, 1942, and most recently as sales representative in the north central states.

M. RUSSELL KAMBACH has been named advertising manager for Aluminum Company of America, effective March 1. Mr. Kambach, who has been assistant advertising manager since March 1, 1949, will be succeeded in that position by Jay M. Sharp of the ALCOA advertising department. He joined ALCOA's advertising department in 1930. Mr. Sharp joined ALCOA's advertising and public relations department in 1943.

K-D LAMP COMPANY, Cincinnati, has announced the appointment of two new district managers. They are: Paul Oxley, headquarters Macon, Georgia, who will serve as K-D district sales manager for Alabama, Georgia and Florida, and Paul Kern, headquarters Cincinnati, who will serve half of Ohio, part of Indiana, Kentucky, and West Virginia.

G. WALTER KLEINSCHMIT, president of the National Standard Parts Association and an executive of the Automobile Equipment Company, Detroit, recently addressed members and guests at the association's western regional meeting, held February 15 at the St. Francis hotel, San Francisco. "With more than 43 million cars, trucks and buses operating on the highways that will travel an estimated 450 billion miles this year, we can be assured that there will be a strong demand for service," Kleinschmit said. "Another factor in our favor is that the average age of automobiles still hovers over the eight-year mark with postwar cars now moving into the replacement parts market for the first time."

More than 400 representatives of the industry in the 11 far-western states attended the half-day NSPA session, which was concluded with a luncheon.

ARGUS LEIDY has been named vice president in charge of export sales of Globe Hoist Company. He joined the Globe Hoist staff in 1939, and has since served in the dual capacity of export manager and advertising manager. In becoming vice president in charge of the company's export operations, he will also retain his former duties, both in the domestic and overseas markets, with offices at Globe's Philadelphia plant, Mermaid Lane and Queen Streets.

MACK TRUCKS, INC., and subsidiary companies — Preliminary figures for the year ended December 31st, 1949, indicate net sales of $78,300,000 with an estimated net loss of $3,905,000, after estimated recovery of Federal Income Tax through carry-back of $2,300,000. This compares to sales for the fiscal period of 1948 of $109,187,000, with a net profit of $2,328,000, after provision of $1,615,000 for Federal Income Taxes.

W. E. McLEAN has been elected vice president and sales manager of the Mack Motor Truck Company's New England territory. He first joined Mack in 1919. His most recent position has been manager of Mack's Boston branch.

E. G. EWELL, vice president of the corp., has been named general sales manager of the eastern, Atlantic and southern sales divisions. Mr. Ewell first joined Mack in 1924 as a salesman. He became vice president of the Mack Company in 1945.

A. F. FENNER, vice president of the corp., has been named general sales manager of the central, southwestern and Pacific Coast divisions. He first joined Mack in 1915 as a salesman. He became vice president of the company in 1923.

The MINNESOTA MINING & MANUFACTURING CO. has recently purchased 26,000 square feet of additional office and warehouse space in Detroit, Mich. Two buildings and nearly four acres of land are included in the property.

JOHN M. MITCHELL has been appointed manager of Aluminum Company of America's export division, and G. B. D. Peterson has been named head of the division's New York office. Mr. Mitchell started with the company at its Alcoa, Tennessee plant in 1929 and Mr. Peterson joined Alcoa in 1928.

THE OHIO BRASS COMPANY, Mansfield, Ohio, has announced the appointment of William B. Owens as district manager of the territory in the Southeast formerly covered by the late George Willis. His headquarters temporarily are to be in Atlanta.

A broad knowledge of the electric power and transit industries provides Mr. Owens with the background for handling his new duties.

E. G. Ewell

A. F. Fenner

Argus Leidy

William B. Owens

Before joining the O-B organization, he was associated with the Georgia Power Company and earlier worked with the Link Belt Co.

THE RADEL LEATHER MANUFACTURING CO. of Newark, New Jersey, tanners of furniture and automobile leathers since 1898, have announced the appointment of Dale J. McKnight of Summit, New Jersey as sales manager. He succeeds H. H. Cudlipp who has retired due to ill health.

A. H. SCHMELTZ has been named manager of Aluminum Company of America's newly-established patent department. He has spent his entire professional career with Alcoa, having joined the Company in 1929.

Alcoa's patent activities were formerly a part of the Company's research laboratory organization. Under the new arrangement, the patent department will report directly to the general management of the Company, thus providing broader patent service to all Alcoa divisions.

SEIBERLING RUBBER COMPANY, citing "upside down year" in the replacement tire market, which cut into sales and earnings, has reported a loss of $359,351 for 1949 after income tax carry-backs. J. P. Seiberling, president, said the industry sold "fewer tires than expected" to the replacement market. This brought on price cutting, which, he said, hurt all tire companies—"especially Seiberling, because nearly all our business is in replacement tires."

Net sales were $25,338,774, a drop of 10.8 percent from 1948 sales of $28,414,291. Earnings for 1948 were $467,758. Of the loss, $60,676 came from Canadian dollar devaluation, which cut the value of assets of the company's Canadian subsidiary.

Seiberling counted the loss at the rate of $1.93 per common share, compared with 74 cents a share earned in 1948. Total current assets of $10,209,213 compared with current liabilities of $2,154,956, a ratio of 4.7 to 1. Working capital of $8,054,257 was down $514,479 from 1948, and surplus dropped $417,339 to a year-end total of $4,529,357.

RICHARD R. TETTELBACH has been named assistant advertising and sales promotion manager of The Cleveland Chain & Mfg. Co., Cleveland, Ohio. Prior to joining Cleveland Chain, he was associated with Hill & Knowlton, Cleveland public relations and publicity firm.

MALCOLM W. VALENTINE has been named superintendent of inspection and quality control for Hunt-Spiller manufacturing Corp., Boston, manufacturer of heavy duty brake drums. He has been with Hunt-Spiller since 1915.

R. C. VAUGHN, recently retired president of the Canadian National Railways, has been appointed a director of Canadian Car & Foundry.

THE WHITE MOTOR COMPANY has reported a net profit of $970,653, equal to about $1.41 per share, for 1949. This compares with a net profit of $3,426,352 equal to $4.98 per share in 1948.

Net sales last year amounted to $77,398,860 as compared with $97,804,546 in 1948. 10,419 buses and trucks were sold in 1949 compared to 14,104 in 1948.

BUS AND TROLLEY BUS DELIVERIES

(Domestic deliveries in February, 1950)

Motor Bus Deliveries	Number of Buses	Manufacturer	Model & Type	Seats
Albany-Cohoes Bus Lines, Inc. (N. Y.)	2	GMC	TGH-3101	31
Bartonville Bus Lines, Inc. (Ill.)	2	GMC	TGH-3101	31
Caseyville Bus Lines, Inc. (Ill.)	1	GMC	TGH-3612	36
Chestnut Ridge Transp. Co. (Pa.)	1	GMC	TGH-2708	27
City Bus Co. (Okla.)	2	Mack	C-33	33
City Util. of Springfield (Mo.)	5	GMC	TGH-3101	31
City of Euclid (Ohio)	4	Mack	C-41D	41
Fraser Transportation Co. (Mo.)	1	Flexible	2501-50	25
Joplin-Martinsville Trans. Lines (Ind.)	1	Beck	Super Steelliner	28
Jacksonville Coach Co. (Fla.)	2	Mack	C-43D	43
Louisiana Transit Co. (La.)	1	GMC	TGH-3101	31
M & G Bus Co., Inc. (N. J.)	1	GMC	TDH-4010	40
McCoy Bros. Bus Lines (Pa.)	1	GMC	TGH-2708	27
Meridian City Lines, Inc. (Miss.)	3	GMC	TGH-3101	31
Mid-Continent Coaches (Okla.)	2	Flexible	810-50	
The Ottawa-Stewart Transp. Co. (Ohio)	1	GMC	TGH-3101	31
Portland Traction Co. (Ore.)	25	Mack	C-43D	43
	7	Mack	C-37D	37
Queen City Coach Co. (N. C.)	1	Beck	Metalliner	37
St. John Transp. Co. (Ohio)	2	GMC	TGH-3101	31
St. Joseph Lt. & Power Co. (Mo.)	4	Southern	P-35M	36
Sedalia, Marshall, Boonville Stage Lines (Ta.)	3	Beck	Hgwy. Post Office	
The Short Line, Inc. (R. I.)	1	Flexible	3287-49	33
Southern Stages, Inc. (Ga.)	1	ACF Brill	D-41	37
Somerset Bus Co., Inc. (N. J.)	2	ACF Brill	C-44	43
Suburban Coach Lines (Ga.)	4	Flexible	810-50	
Trenton Transit Co. (N. J.)	3	ACF Brill	C-36	36
Warren City Lines, Inc. (Pa.)	1	Beck	Metalliner	37

(Miscellaneous deliveries in February, 1950)

Minnesota Farmers Union (Minn.)	1	Flexible	2601-50	26

(Foreign deliveries in February, 1950)

Acadian Coach Lines (Can.)	5	Flexible	2601-50	26
Dist. de Dom. Fitzjohn, S.A. (Mex.)	13	Fitzjohn	Duraliner	28

(Trolley Bus deliveries in February, 1950)

San Francisco Muni. Ry. (Cal.)	20	Marmon-Herrington	TC-48	48

TOTAL DELIVERIES REPORTED IN THIS ISSUE: 108 Buses, 20 Trolley Buses

TOTAL 1950 DELIVERIES REPORTED TO DATE: 275 Buses, 24 Trolley Buses

NOTE: This list is based on monthly reports from manufacturers. Not all manufacturers report regularly, consequently, this list is not to be considered complete.

J. C. Steinmetz, Atlanta, Ga., has purchased these four new flexible Highway Post Offices. He will supply highway post office service for the next four years on two routes, one between Atlanta and Knoxville, Tenn., the other between Atlanta and Columbus; a total of 374 mi.

The tough overcharge test where Exide Batteries "*get the works*"

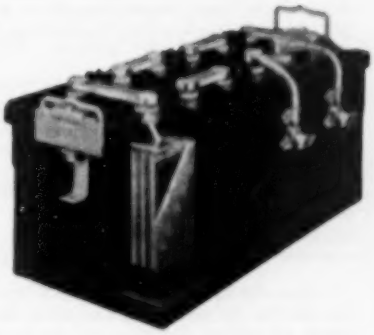
It's one of many tests that Exide Batteries must pass to make certain they will give you top performance in rugged service. Because of the trend toward larger generators and the increased electrical load on the modern bus, the test is specially important today.

The test shows how plates and separators stand up under continuous overcharge . . . not for a brief period, but for as long as 48 weeks, and at an average temperature of 100°F.

Results of the overcharge test show that Exide Batteries greatly exceed the minimum requirements of the S.A.E. standard. This and other tests assure you that when your motor coach batteries are Exides, you can count on dependable performance, long battery life, minimum maintenance and low cost per mile of operation.

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 32
Exide Batteries of Canada, Limited, Toronto

"Exide" Reg. Trade-mark U.S. Pat. Off.



Service-proved features that make Exide outstanding for bus service — gas or Diesel

- Long Life "LX" plates — proved in service.
- Heavy cell connectors.
- Reinforced hard rubber covers.
- Heavy-duty hard rubber container.
- Treated wood separators with Vitrex retainers.
- Quarter turn vent plugs for convenient cell inspection.

1888 . . . DEPENDABLE BATTERIES FOR 62 YEARS . . . 1950

but, lube oil temperature NORMAL

Heat under the hoods of today's faster, more powerful, long haul trucks is a constant threat to proper lubrication of close tolerance engine parts.

Fully aware of this, many truck manufacturers have been quick to recognize the need for supplementary oil cooling . . . quick to recognize, too, that factory-installed Ross Exchangers are the most practical safeguard for both Diesel and gasoline engines. They know of no more efficient means of providing a continual supply of lube oil at constantly safe and effective temperatures . . . no more reliable means of guarding against seizure of vital, precision-made parts, burned out bearings, breakdown of crucial oil films.

But in standardizing on the Ross Exchanger, truck manufacturers have carefully considered their own problems, too! Naturally! It is ideally suited to assembly-line methods: Slips into position like any standard automotive part . . . pipe connections and supports are conveniently located* . . . compact shell and tube design consumes relatively small space . . . an assembly-line product itself, it is carried in stock in a full range of standardized sizes, ready for immediate shipment.

It naturally follows then, that truck operators alert to the need for that extra margin of safety afforded by *additional* oil cooling facilities, are checking new model trucks (and their present fleet, too) to make sure they're Ross-equipped.

So, in the manufacture of trucks as in the manufacture of buses and fire engines, the name "Ross" is fast becoming a standard specification. For, assigned to the oil cooling job in bus engines and torque converters, and to the booster jacket water cooling jobs in fire engines, is this same, famous Ross Type BCF Exchanger. ROSS HEATER & MFG. CO., INC., Div. of American Radiator & Standard Sanitary Corp., 1462 West Ave., Buffalo 13, N. Y. In Canada, Horton Steel Works, Limited, Fort Erie, Ont.

*Where conditions require special connections or supports, they can be arranged readily when practicable.

★ COMPLETE DATA Write for 8-page illustrated booklet 1.1K1. It's free.

ROSS

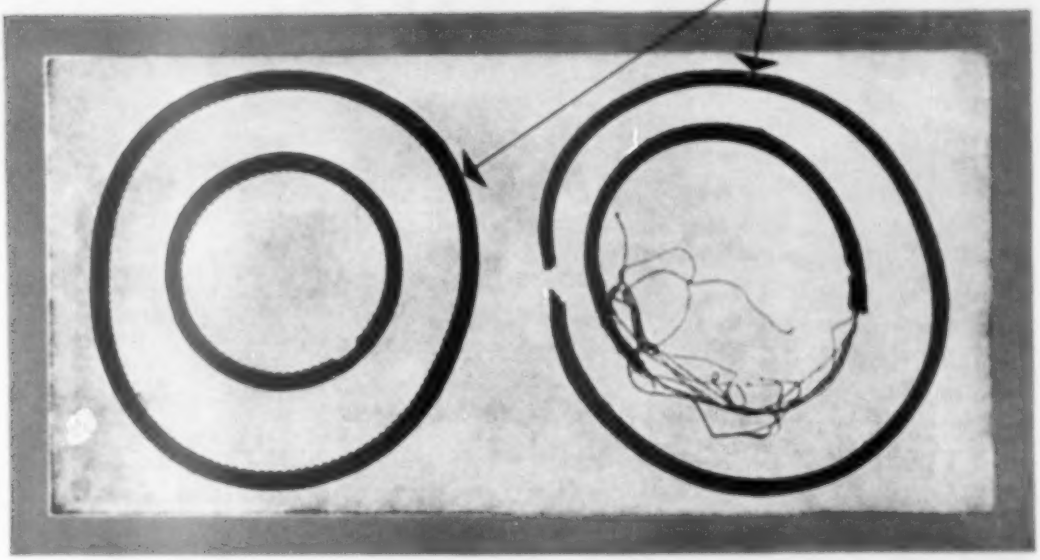
EXCHANGERS

FOR ENGINES AND TORQUE CONVERTERS

Serving home and industry

AMERICAN STANDARD • AMERICAN BLOWER • HEAT-X-CHANGE • DETROIT STOKER • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

Which belts went to school 90% LONGER?



Both these sets of automotive belts ran on school busses. The big belts drove generators, the small belts compressors.

The set on the left—Dayton Cog-Belts*—went 46,241 miles without failure. The other set "flunked" after only 24,277 miles.

Dayton Automotive Cog-Belts* consistently outrun other makes. They are of exclusive, patented Cog construction. They are scientifically built to bend. The space between cogs takes up compression as the belt goes round the pulleys. Result: greater flexibility, less heat generated, longer life.

For longer trouble-free belt life on fan, generator, and accessory drives, take a lesson from these belts that went to school—get Dayton Cog-Belts*! See your Dayton Distributor or write:

THE DAYTON RUBBER COMPANY, DAYTON 1, OHIO

*T.M.

Safety shows up in "Profit and Loss"

Safety often means the difference between a fleet owner's operating in the red or the black. Dayton has designed a colorful set of safety posters (17" x 22") that will help sell your drivers on safety. They are *free* to all fleets. Just fill out the coupon!

THE DAYTON RUBBER COMPANY
DAYTON 1, OHIO

Name _____

Company _____

Street _____

City & State _____

Cog-Belts by Dayton Rubber

WORLD'S LARGEST MANUFACTURER OF V-BELTS

Huge and Diversified Fleet Standardizes on

CHAMPION

FOR 16 YEARS!

"In our constant striving to keep low ton mile cost consistent with high performance, we never have been able to improve on Champion Spark Plugs!" **THE WILLETT COMPANY**

Howard L. Willett Jr.
Executive Vice-President

With more than a thousand power units operating in a wide variety of services, the above statement from the vice-president of The Willett Company of Chicago is solid proof that with major fleet operators dependable Champion Spark Plugs represent the ultimate in economy and efficiency.

FOLLOW THE EXPERTS–

SPECIFY CHAMPIONS FOR YOUR FLEET!

DEPENDABLE
CHAMPION
SPARK PLUGS

CHAMPION SPARK PLUG COMPANY, TOLEDO 1, OHIO

Listen to the CHAMPION ROLL CALL . . . Harry Wismer's fast sportscast every Friday night, over the ABC network

(Partial view of the enormous new lubricating oil plant at Lake Charles, La., where this great new oil is processed.)

"ANTI-FOULING" OIL made by the Remarkable new "HEART-CUT" PROCESS

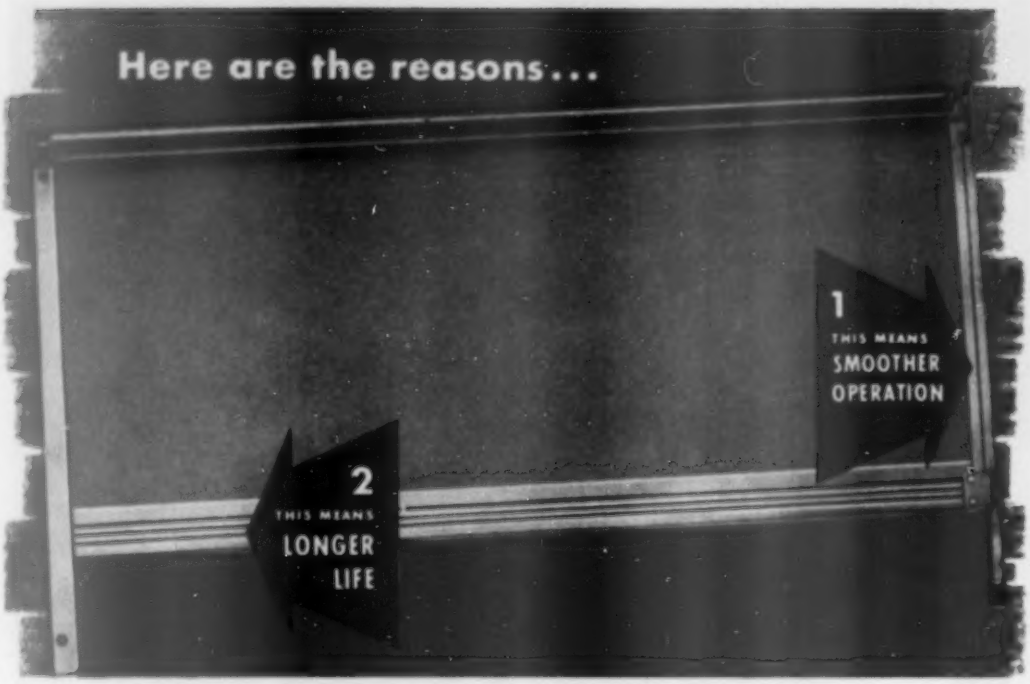
This new oil—the best known to science... gives you a cleaner engine... more economy ... minimum carbon residue.

It's here now! The remarkable motor oil from the giant new $42,000,000 lubricating oil plant at Lake Charles, La. The plant that's been the big talk of the oil industry for months.

New Premium Koolmotor is made by the unique "Heart-Cut" Process which retains only the choicest part of the finest crudes. *It's so superior that in recent engine tests it outscored nine other major premium motor oils.* No wonder Premium Koolmotor is better in every way! Cleans better, seals better, cools better and fights acid, sludge and corrosion far more effectively. Switch to this remarkable new oil today.

start saving Dollars today... stop at

CITIES SERVICE



why ADLAKE Cable-Type Curtains

Give Better Service for Longer!

Adlake Cable-Type Curtains move up or down on steel cables that are fastened in the curtain grooves. This means that operation is always smooth and easy—the fixture is held straight and even in the grooves, cannot flop loose because of improper handling or adjustment.

The handsome extruded aluminum apron across the bottom of the fixture prevents soiling or tearing of the fabric, guaranteeing a long, useful life. In addition, the curtain can be raised or lowered from *any* position across its entire width, without the cocking of one end higher than the other.

The Cable-Type Curtain is especially desirable in those window openings where the width of the curtain must exceed its length. For full information on Adlake Cable-Type Curtains, as well as the other popular Adlake designs, address The Adams & Westlake Company, 1112 North Michigan, Elkhart, Indiana. No obligation, of course.

Adlake trade mark — THE Adams & Westlake COMPANY

Established 1857 ELKHART, INDIANA New York Chicago

Manufacturers of Adlake Specialties and Equipment for the Transportation Industry

"THEY'LL DO A BIG JOB FOR YOU···IN SAVINGS··IN SAFETY···IN BETTER SERVICE"

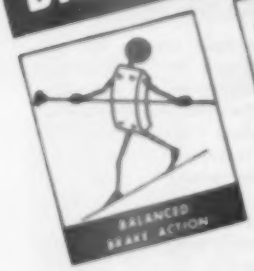
SAYS *Mr. Experience*

"Today because of high operating costs there naturally is extra effort on your part to save more money and yet maintain your high standard of service," says Mr. Experience. "Well, sir, GATKE BRAKE BLOCKS give you one sure way to cut costs through savings in maintenance and replacements. In addition you add safety to your service and give your passengers greater riding comfort.

"I know all of these benefits will be yours because I realized them for years and plenty of other operators are getting the same good results right now."

Fewer adjustments and replacements required when you use GATKE BRAKE BLOCKS—they are easy on the drums—they give you balanced brake action—they keep you within the brake maintenance budget—they provide greater safety because you get positive stops (no disturbance to passengers)—the holding power is constant under all operating temperatures—they do not lose their efficiency on steep grades or under prolonged use.

Gatke BRAKE BLOCKS



• Get full details—see the GATKE jobber near you or write us. No greater cost for GATKE BRAKE BLOCKS than that of ordinary brake lining.

UNIFORM WEAR BECAUSE OF CORRECT BALANCE BETWEEN PRIMARY AND SECONDARY SHOES

36th Gatke YEAR 1914 · 1950

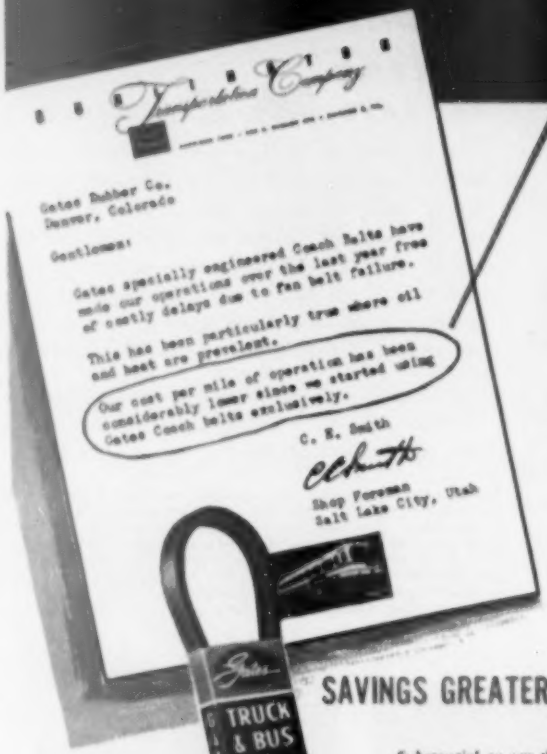
BRAKE LINERS AND BLOCKS

GATKE CORPORATION

220 N. LA SALLE ST. CHICAGO 1, ILL.

BURLINGTON Shop Foreman Says of this Gates Coach Belt:

"OPERATING COSTS Considerably LOWER"



No Road Failures... Saving Costly Delays

The carefully kept records of many leading transportation companies *prove* that they are cutting their belt costs by as much as *half* since they began using the specially engineered Gates COACH Belt.

There are simple reasons for this. First, the Gates Coach Belt is built with a special heat-resisting rubber compound that readily withstands the severe heat often present in Rear Engines. Again, the Gates Coach Belt is *Oil-proof!* Finally, this belt has been given immensely *greater tensile strength* by building it with high-tenacity RAYON cords—and it also is given a tough, multiple-ply cover of more than *double durability*.

SAVINGS GREATER *than Cutting Belt Costs in Half*

Substantial as are the savings in belt costs gained by using Gates Coach Belts, there is *another* saving even *greater*.

As you well know, the failure of a coach belt can cause great mechanical damage by overheating the engine. This results in costly repairs and also *bad traffic delays*.

The loss of public good-will resulting from *delays* is regarded by many transportation companies as far more serious than even a very heavy repair bill.

If you want to cut your belt costs and, in addition, avoid the loss of time and of public good-will you incur when a coach belt fails—just drop us a line right now!

A Gates Coach belt specialist—working in close co-operation with your local Gates belt jobber—will come right to your own place and show you how to have the lowest belt costs and the most efficient belt service you have ever enjoyed!

Look for this TQ

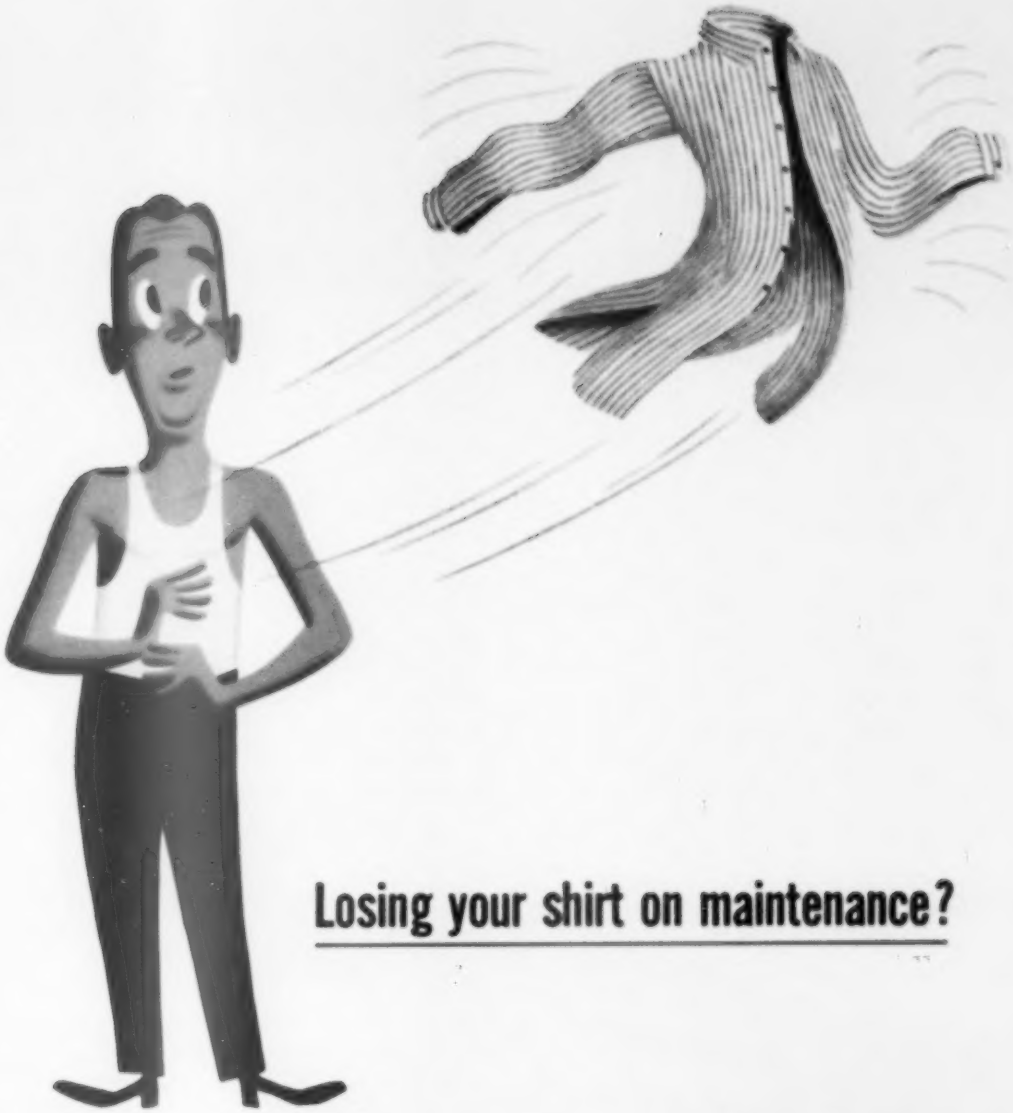
Look for these letters "TQ" on the belt itself—as well as on the label—of every belt you buy for rear engine service. "TQ" means that the belt has been specially engineered for Coach Rear Engines. You can be sure of getting the belt designed for this more demanding service only by seeing to it that you are delivered belts which bear the letters "TQ".

*Reg. U. S. Pat. Office

C-502

THE GATES RUBBER COMPANY
Denver, U. S. A.
The World's Largest Makers of V-Belts

Gates
The Mark of SPECIALIZED Research



Losing your shirt on maintenance?

If a large part of maintenance expense goes for engine repairs, chances are, Quaker State HD Oil could save you money!

Quaker State HD Oil is specially made to prevent wear in heavy duty use. Made from 100% pure Pennsylvania grade crude oil, it's refined with the most modern processing equipment and with technical skill unsurpassed in the industry.

Even under toughest operating conditions, it keeps its body, lubricates thoroughly, protects every friction surface. It helps prevent formation of sludge, gum, varnish—actually *cleans* as it lubricates!

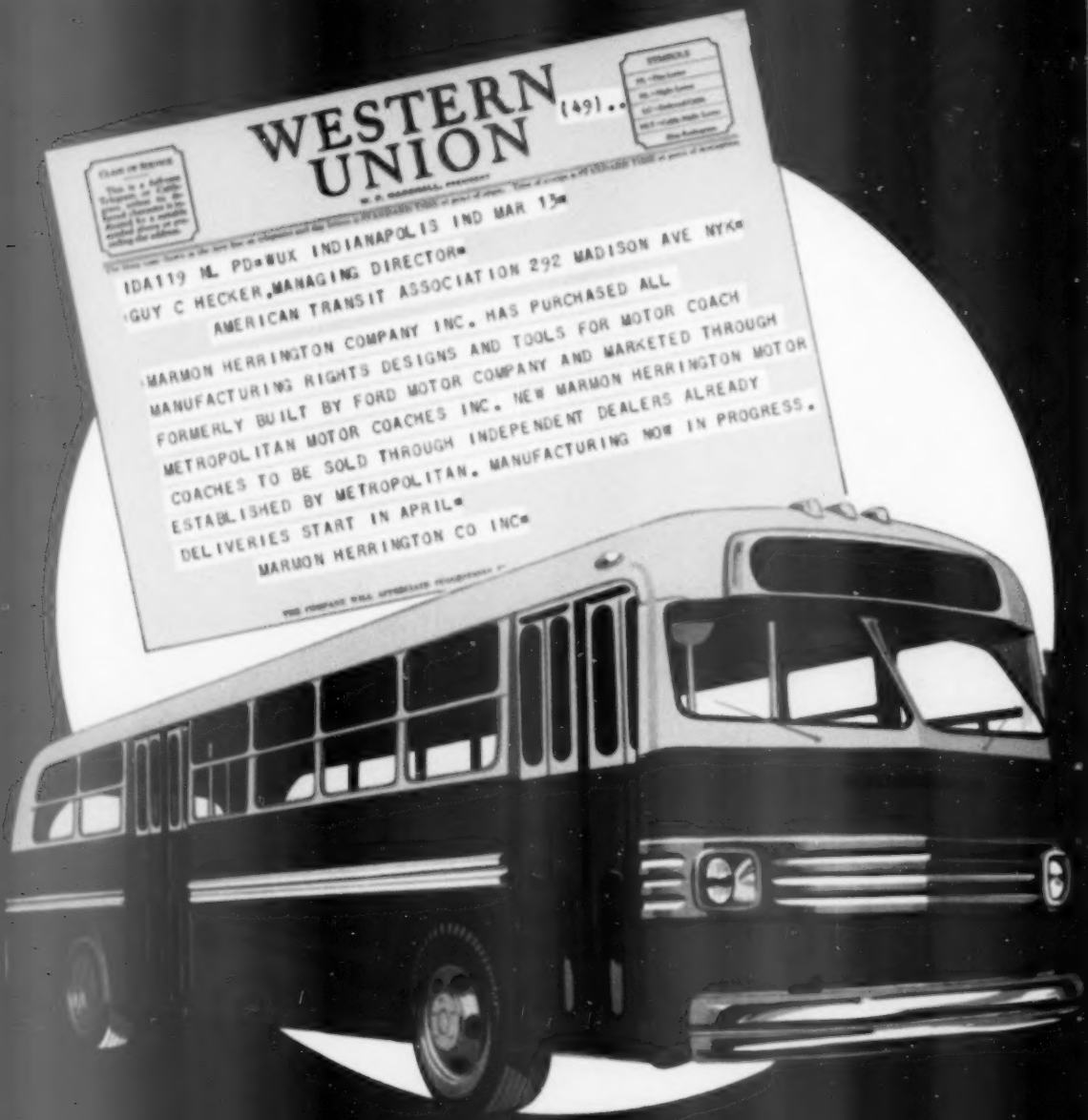
There is no finer engine lubricant, so switch over to Quaker State HD Oil—and keep 'em rolling!

QUAKER STATE
HD
OIL

Use Quaker State HD Oil for trucks, buses, taxis, tractors.
Use Quaker State Motor Oil for passenger cars.

QUAKER STATE OIL REFINING CORPORATION, OIL CITY, PA.

MARMON-HERRINGTON



adds Motor Coaches

When it was announced that Marmon-Herrington had purchased all manufacturing rights, designs, and tools for the Motor Coach previously built by the Ford Motor Company and marketed through Metropolitan Motor Coaches, Inc., congratulations began pouring in . . . *with orders!*

Marmon-Herrington entered the transit field three years ago, with the M-H Trolley Coach. The success of this Trolley Coach—which has been proven from coast to coast—helped influence Marmon-Herrington to expand its line of transit vehicles.

The Ford Motor Coach has established an outstanding position for itself among vehicles of its size and type. Thus when Marmon-Herrington decided to manufacture the line of Motor Coaches formerly built by Ford . . . and to stand fully behind these vehicles with the same high quality of engineering already recognized in the M-H Trolley Coach . . . they hoped for a response as enthusiastic as that given the Trolley Coach.

The flood of letters, telegrams, and phone calls which are still coming from every direction—the sincere good wishes from friends throughout the transit industry—have Marmon-Herrington officials brimful of gratitude. The result? M-H Motor Coach deliveries will start in April!

The new M-H Motor Coaches will be manufactured in 27-29 and 31-35 passenger models. They will be powered by the thoroughly proved 6-cylinder, Ford bus-type engine. The nationwide independent dealer organization already established by Metropolitan will distribute M-H Motor Coaches.

M-H Trolley Coaches will—as in the past—be sold direct to users by Marmon-Herrington.

Watch for more M-H Motor Coach details in the near future. In the meantime, please accept the heartfelt appreciation of Marmon-Herrington for the confidence you have shown through your letters, telegrams, phone calls and orders.

MARMON-HERRINGTON COMPANY, INC.
Transit Equipment Division • Indianapolis 7, Indiana

If Profits are Your Problem . . .

THINK

MARMON-HERRINGTON

TRANSIT VEHICLES

Spicer
EQUIPMENT
...preferred by all
BUS manufacturers
GM
Speedster
Pierce
White
Mack
REO
BECK
Flexible
A typical Spicer "Brown-Lipe" Clutch, Transmission, Propeller Shaft and Universal Joint installation as used in the NEW FLXIBLE VISICOACH
Spicer Equipment is chosen for its 46-year continuous service record unequalled in the industry
SPICER MANUFACTURING • Division of Dana Corporation
TOLEDO 1, OHIO
46 YEARS OF
Spicer
SERVICE
TRANSMISSIONS • PASSENGER CAR AXLES • CLUTCHES • PARISH FRAMES • STAMPINGS
FORGINGS • TORQUE CONVERTERS • PROPELLER SHAFTS • SPICER "BROWN-LIPE" GEAR BOXES
UNIVERSAL JOINTS
RAILWAY GENERATOR DRIVES

AMERICAN SEATING COMPANY ANNOUNCES THE NEW

AMSECO BODIFORM OFFSET SEAT

No. 1321

Amseco Bodiform OFFSET BUS SEAT NO. 1321. Note wide, spacious roominess and contoured back for extra comfort.

Offset seating developed by Col. Sidney W. Bingham, Chairman of Gd. New York Board of Transportation

FOR ADDED COMFORT... GREATER PRIVACY... EXTRA AISLE SPACE

Here is a brand-new kind of city-service bus seat which will help build patronage by making bus travel more attractive. Because of the five-inch offset, the window passenger sits well forward of the aisle passenger, enjoying more shoulder room, more privacy, and more comfort. Shoulders overlap instead of bumping. Standees gain extra aisle space. Loading and unloading become much easier. And because there is no foot rail, housecleaning is easier, faster, more economical.

In addition to these new advantages, this Offset Seat offers these famous Amseco Bodiform features:

- ✓ **Back scientifically contoured for comfort**
- ✓ **Streamlined footpad for better seat support**
- ✓ **Extra-strong nylon-sewed seams**
- ✓ **Rugged, self-centering seat bottom-board clips.**

Write for new free booklet giving the complete story of Amseco Bodiform superiority.

Rigidized stainless-steel back panel is handsome, permanent, maintenance-free. Offset means privacy for knees as well as shoulders.

American Seating Company

WORLD'S LEADER IN PUBLIC SEATING

Grand Rapids 2, Michigan • Branch Offices and Distributors in Principal Cities

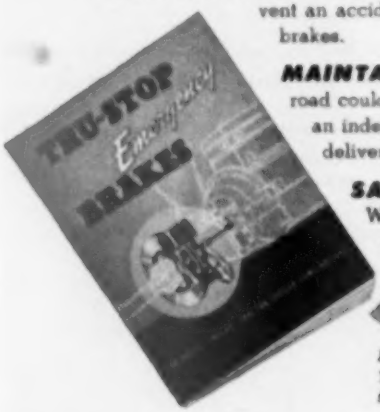
Manufacturers of Transportation, School, Auditorium, Theatre, Church, Stadium Seating, and Folding Chairs

...THAT takes care of Emergency Brake specifications

When you write "***TRU-STOP EMERGENCY BRAKES***" into your specifications for new buses or trucks, you're saying, "*I want the safest, most efficient emergency brakes I can get.*"

Here is why more and more operators are finding that it pays to standardize on TRU-STOP Emergency Brakes:

PREVENT ACCIDENTS. Three ways. (1) They cut down—practically eliminate—possibility of parking brake accidents. (2) They have the capacity to stop and hold the loaded vehicle in event of failure of service brakes. (3) Where only a quick stop will prevent an accident, TRU-STOP Emergency Brakes will supplement service brakes.



MAINTAIN SCHEDULES. A service brake failure on the road could mean hours of down time. With TRU-STOPs, the driver has an independent braking system—can safely complete his run and deliver his load.

SAVE ON SERVICE. TRU-STOPs rarely need service. When they do need adjusting or relining, the job is a simple one for any mechanic with ordinary tools.

Send for this booklet

If you do not have up-to-date information about TRU-STOP Emergency Brakes, write our Detroit office for your copy of DH-33.

ACCO 6-255 General Motors Bldg., Detroit 2 • 1109 Santa Fe Avenue, Los Angeles 21 • Bridgeport, Conn.

AUTOMOTIVE AND AIRCRAFT DIVISION
AMERICAN CHAIN & CABLE

In Business for Your Safety

TRU-STOP *Emergency* BRAKES

"DIRT-PROOF" Prevents This—

Dirty oil clogs ring slots. It also gums valve stem guides and constricts oil passages. An AC Element removes sludge and dirt and keeps oil "Dirt-Proof."

A high percentage of the most successful fleet owners have found it thrifty to "Dirt-Proof" their engine oil with AC Oil Filter Elements.

Quality is the reason for their choice. Every AC Element is engineered for the job it has to do—and manufactured to AC's highest standards.

This uniform quality gives uniform results. Oil stays clean—valves and rings stay free—moving parts are protected against undue wear.

AC makes elements designed for your oil filter, which will help you to maintain the power and efficiency of your engines—and to keep maintenance costs satisfactorily low.

AC OIL FILTERS

preferred on millions of vehicles

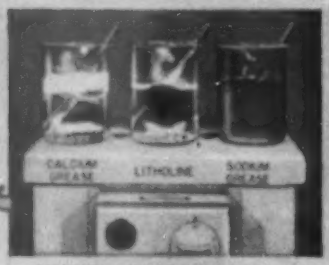
AC SPARK PLUG DIVISION • GENERAL MOTORS CORPORATION

ONE Grease for ALL

"Yes—One Grease, One Gun and A Better Job too!"

Here is a versatile grease that can be used with absolute confidence wherever lubrication is needed—chassis, wheel bearings, water pumps, universal joints, etc., in winter or summer—under *all* kinds of operating conditions.

These 4 Severe tests prove SINCLAIR LITHOLINE is better than any single grease!



WATER RESISTANCE TEST!

Samples of each grease are heated in beakers of water. Near boiling, the sodium grease disintegrates into soapy water and oil. Shortly after boiling the calcium grease shows foamy emulsion as grease absorbs excess water. Litholine remains unaffected, proves its superiority in combating wet conditions.

SCENE: Sinclair's Research Laboratories, Harvey, Ill.

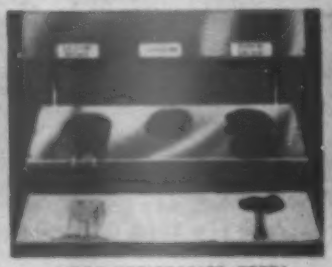
CAST: Two commonly-used greases of highest quality; a calcium soap chassis lubricant and a sodium soap wheel bearing grease; and Sinclair's Litholine.

SINCLAIR REFINING

Lubrication Jobs!

LOOK WHAT ONE-GREASE—ONE-GUN LUBRICATION MEANS TO YOU...

1. Superior protective lubrication
2. No danger of misapplication
3. Less chance for contamination
4. Reduced time-out for lubrication and maintenance
5. Fewer servicing man-hours
6. Less wastage
7. Fewer dispensing units
8. Smaller grease inventories
9. Simplified purchasing and distribution
10. A finer grease at every lubrication point

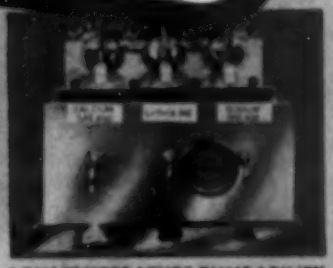


HEAT-RESISTANCE TEST!

The samples are heated on a plate. At 190°F., the calcium grease disintegrates. At 240-280°F., the sodium soap structure collapses and releases the oil. Bearing failures would follow. At 280°F., Litholine shows no effects, proves superior for high temperature lubrication jobs.

MECHANICAL STABILITY TEST!

Worked (kneaded) samples are placed beside samples of unworked grease. Steel balls are dropped. Distance ball sinks in worked samples shows increase in softness—loss of stability. The calcium grease showed greatest increase in penetration, the sodium grease next. Litholine showed no difference whatever . . . proving its superior mechanical stability in service.

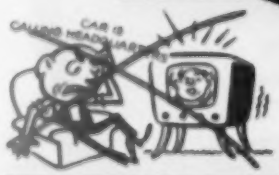


LOW TEMPERATURE PUMPABILITY TEST!

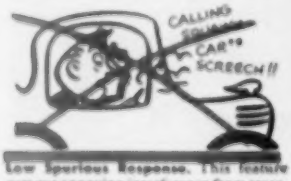
Lever-type grease guns are filled with classic greases and sealed. At 20°F., it is impossible to pump the sodium grease. At 0°F., it is impossible to pump the calcium grease. But Litholine still pumps in good volume! Yet Litholine is a heavier (harder) grease. Thus, Litholine has the body for summer service yet is pumpable in severely low temperatures.

COMPANY

For lubrication counsel, or more information on Litholine, see your nearest Supplier of Sinclair Products, or write to Sinclair Refining Company, 630 Fifth Avenue, New York 20, New York.



Low Spurious Emission. The FLEETFONE more than meets FCC rules. Spurious emissions are well down at all frequencies—not just in the 30-50 Mc band alone.



Low Spurious Response. This feature cuts out annoying interference from transmitters operating on other frequencies.

Transducer Modulation Control. It holds your voice level constant whether you shout or whisper into the "mike." Introduces no distortion at high levels. This feature more than meets FCC rules.

HERE'S YOUR ANSWER

to better 2-way radio communication

It's here—everything you want in a *single* compact unit—the RCA FLEETFONE.

Higher Power Output. Your choice of 30 or 60 watts in the same size package.

Easy to Install. "Sandwich" construction offers the widest choice of installation possibilities.

Higher Sensitivity. Better than 0.3 microvolt, that brings in the signals *after* other receivers have lost them.

Low Spurious Emission. 60 db down at *all* frequencies; 80 db down between 30-50 Mc.

Low Spurious Response. 90 db over *all* frequencies; images down 100 db.

"Canyon-Curve" Selectivity. Prevents annoying interference from neighboring channels.

Transducer Modulator Control. Keeps you from "crowding" into the other fellow's channel.

Choice of 6- or 12-volt Operation. Ideal for lightweight vehicles or heavy trucks.

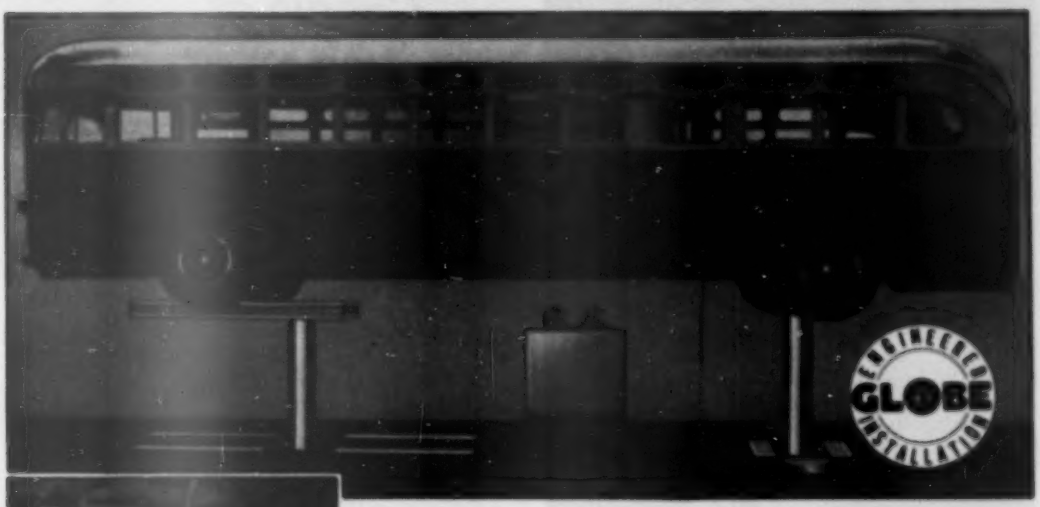
More than Meets All FCC Rules. Your assurance of best possible mobile communication. Your protection against early equipment obsolescence.

For complete information, write Department 136-D, RCA Engineering Products, Camden, New Jersey.

MOBILE COMMUNICATIONS SECTION
RADIO CORPORATION of AMERICA
ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N.J.

In Canada: RCA VICTOR Company Limited, Montreal

FROM COAST TO COAST, it's the GLOBE UNIVERSAL BUS HOIST



Front axle on front rotating superstructure post.

Rear axle on rear saddle post.

For Faster, Better Servicing

Preferred by economy minded bus operators from coast to coast, Globe SER Type Universal Bus Hoist gets 'em serviced and back on the road FAST . . . provides full access to rear engine drives, underfloor equipment, underside parts, for better servicing at real time savings. Developed by Globe engineers to meet the most flexible demands of bus fleet maintenance. The 2-Post Saddle and Short Rail Hoist offers great versatility — handles small and large buses and trolley buses. Rotating type superstructure is adjustable for wide variations in wheelbase lengths. Superstructures recess into floor, covered by plates, leaving floor completely unobstructed.

WRITE TODAY

for complete details on Globe's Engineering Consultation Service . . . and for illustrated specifications on Globe Bus and Truck Hoists. Address: GLOBE HOIST COMPANY, Bus & Truck Div., 1000 E. Mermaid Lane, Philadelphia 18, Pa.

Drawings show flexibility of Hoist to handle short, middle-sized and long wheelbase vehicles.

GLOBE BUS & TRUCK HOISTS
For All Weights and Wheel Bases

GLOBE HOIST CO. . . . Des Moines, Iowa • Philadelphia, Pa.

A Chorus of Praise for CORALOX

Fleet owners are loud in their praise of *CORALOX*.

CORALOX is AC's patented Insulator, from 3 to 10 times better than previous insulators. It is 3 times stronger—has 4 times greater heat conductivity— has 10 times the insulating value at high engine temperatures.

Consequently, in the new, specially designed Commercial Types, AC offers you plugs with better insulator design—wider Heat Range—greater freedom from fouling and oxide coating—surer firing under tough operating conditions.

Use AC Commercial Types in your hard-working engines—and you, too, will be loud in your praise of *CORALOX*.

AC SPARK PLUGS

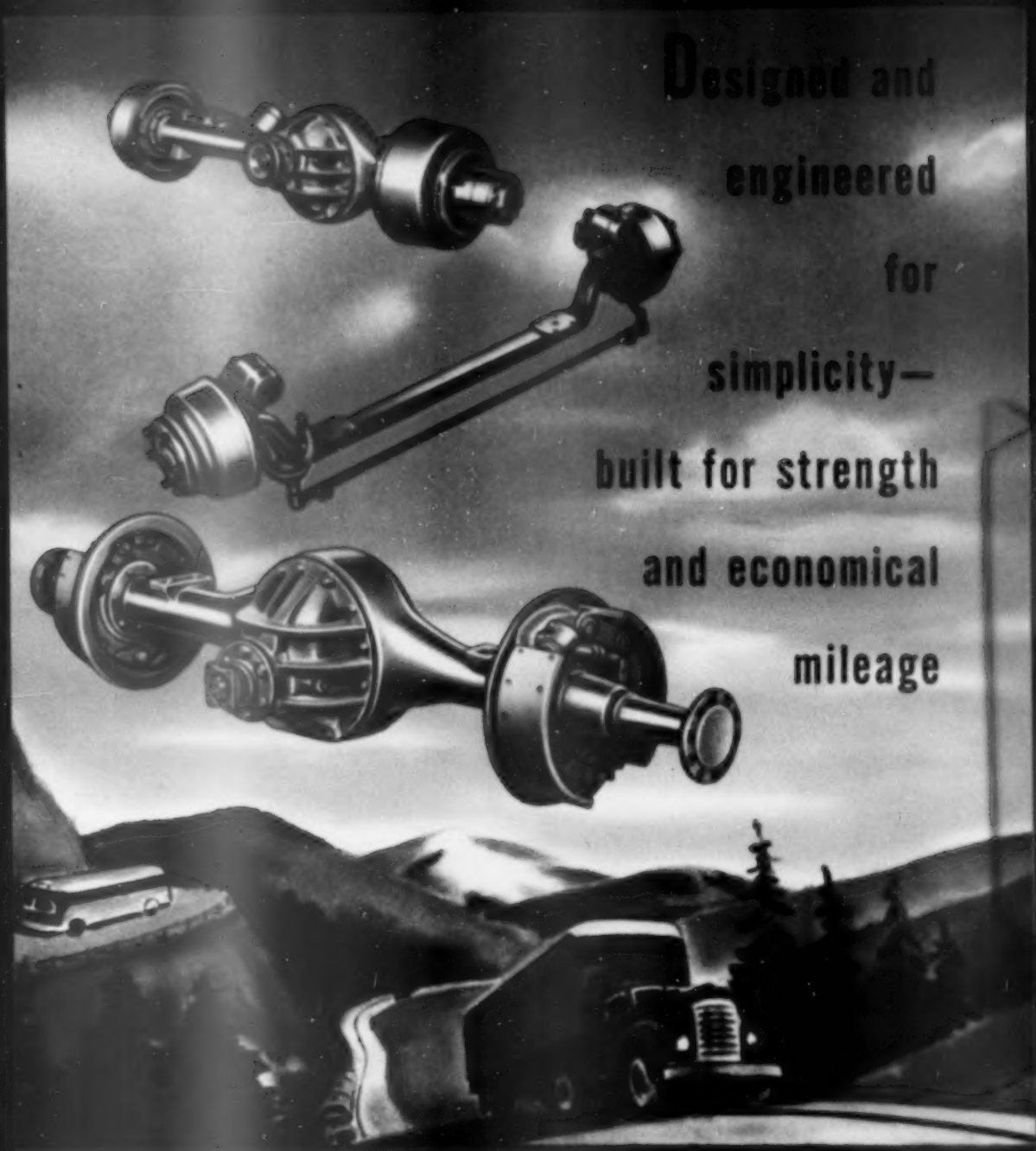
PATENTED CORALOX INSULATOR

AC OIL FILTERS

AC FUEL PUMPS

Preferred on millions of vehicles

AC SPARK PLUG DIVISION • GENERAL MOTORS CORPORATION



CLARK FRONT AND REAR AXLES

FOR TRUCKS—BUSES AND TRACTORS

CLARK EQUIPMENT COMPANY,

FOR MORE ABOUT CLARK

MATERIAL HANDLING NEWS

Good Planning

STRETCHES WAREHOUSE, SPEEDS DELIVERIES At United Motors Service

It takes thousands of items to provide prompt, adequate service to automotive vehicles—spare parts, sub-assemblies, tools, equipment, supplies; and you find a great many of them in the Fairfax warehouse of United Motors Service, a division of General Motors.

How to store a large and varied stock to permit quick movement into the warehouse and equally prompt withdrawal for deliveries, had become an acute problem. Then Clark fork-lift trucks were installed; they proved to be a practical answer.

Most incoming materials are palletized immediately after unloading and are taken by the fork trucks to designated areas. The palletized units are angle-stacked along 6-foot 6-inch aisles for greatest accessibility, and are stored to the trusses.

Pleasant benefits are a well-ordered warehouse and lowest handling; and car dealers' needs are attended to promptly.

WRITE FOR MATERIAL HANDLING NEWS. It gives you "hot news" about how others everywhere are increasing production, decreasing costs. Packed with factual reports, fully illustrated. A request on your business letterhead puts you on our complimentary circulation list.

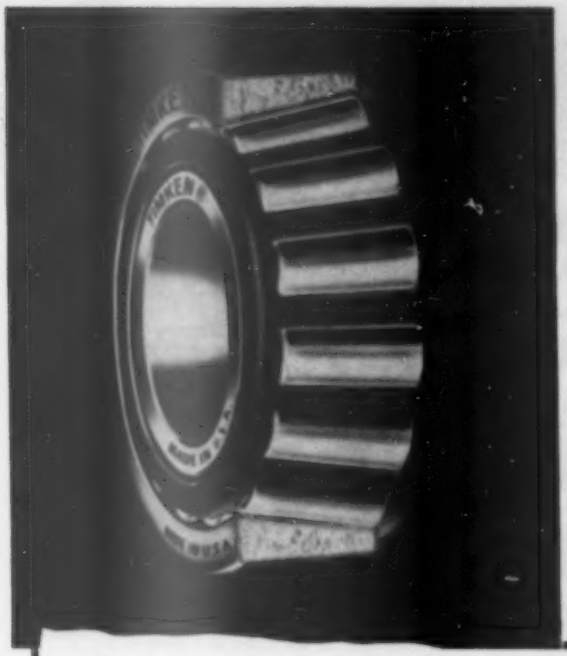
Out to the shipping floor goes a unit load of Delco-Remy Signals in individual cartons, 36 and 48 to the pallet. Notice the angle-stacking for easier maneuvering in narrow aisles.

36 pails of grease weighing 25 pounds each, make an easy, natural load for the fork truck. Some items not requiring individual packages—generators, for instance—are bulk-handled in skid baskets of heavy wire mesh.

CLARK ELECTRIC AND GAS POWERED **FORK TRUCKS**
AND INDUSTRIAL TOWING TRACTORS

INDUSTRIAL TRUCK DIV., CLARK EQUIPMENT COMPANY BATTLE CREEK 67, MICH.
REPRESENTATIVES IN PRINCIPAL CITIES THROUGHOUT THE WORLD
AUTHORIZED CLARK INDUSTRIAL TRUCK PARTS AND SERVICE STATIONS IN STRATEGIC LOCATIONS

PRODUCTS OF CLARK—TRANSMISSIONS · FORK TRUCKS & TRACTORS · AXLE HOUSINGS
GEARS AND FORGINGS · RAILWAY CAR TRUCKS · ELECTRIC STEEL CASTINGS
FRONT AND REAR AXLES FOR TRUCKS AND BUSSES · METAL SPOKE WHEELS · TRACTOR UNITS



Beats friction

In actual service the Timken® tapered roller bearing does all these things a perfect bearing should do.

There are many good reasons for this: Timken bearings have true rolling motion. With full line contact between rolls and raceways, they retain their full friction-reducing qualities under the heaviest loads. And tapered construction enables Timken bearings to take radial and thrust loads—or any combination.

Only Timken tapered roller bearings have all these advantages: (1) advanced design, (2) precision manufacture, (3) rigid quality control, (4) special analysis steels. They are first choice with leading bus manufacturers.

Make sure the tapered roller bearings you use for replacement always are marked "Timken". And send now for the free booklet, *"Timken Tapered Roller Bearings, Their Care and Maintenance"*. Write Dept. TB-4, The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

Another reason why
TIMKEN® bearings are first choice
with bus manufacturers

SINCE THEY'RE BEST WHEN THE BUS IS NEW ...THEY'RE BEST FOR REPLACEMENT, TOO!

TIMKEN

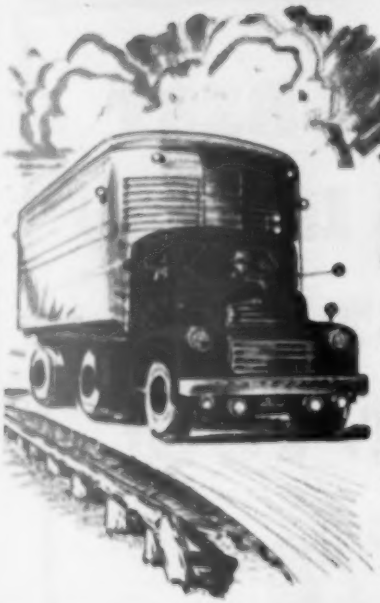
TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⬮ AND THRUST ⬮ LOADS OR ANY COMBINATION

NATURE'S BEST IS TOUGH TO BEAT

THE EYES OF THE CRAYFISH, WHICH GLOW AT NIGHT, ARE MORE RELIABLE TIME PIECES THAN A MAN-MADE CLOCK!
EVEN IF KEPT IN A PITCH DARK ROOM FOR WEEKS, ITS EYES WON'T LIGHT UP DURING DAYTIME HOURS, BUT ONLY AT NIGHT!



VEEDOL 90 H.D.

STARTS WITH NATURE'S FINEST CRUDES

MAKES A TOUGHER OIL

Naturally-tough Bradford, Pa., crudes give VEEDOL 90 H. D. the extra toughness of its fighting "Film of Protection." Every drop of VEEDOL 90 H. D. is refined at Tide Water Associated's ultramodern refinery at Bayonne, N. J. Here, scientifically-selected additives are blended into these naturally stable oils to . . . reduce sludge and gum formation . . . protect bearings from corrosion . . . minimize lacquering of pistons and valve stems . . . *all* with full-throttle operation . . . under the toughest operating conditions!

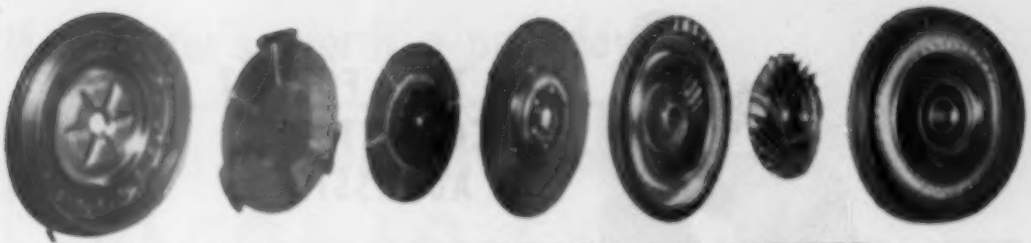
100% BRADFORD, PENNSYLVANIA VEEDOL 90 H. D. CLEANS AS YOU DRIVE

FEDERAL TIRES
"GOOD . . . for a long safe ride!"

VEEDOL
OILS AND GREASES

TIDE WATER ASSOCIATED OIL COMPANY

17 Battery Place, New York 4, N. Y. • Thompson Building, Tulsa 2, Oklahoma • 79 Montgomery Street, San Francisco 20, Calif.



THE LONG TORQUE CONVERTER

We have perfected a new torque converter for the automotive manufacturer.

A highly efficient unit, it has been designed for velvet-smooth power transfer with torque multiplication of better than 2 to 1 at stall.

Converter is direct air-cooled for simplicity and trouble-free service.

The various units of the assembly are fabricated from stampings, with a minimum of copper-brazing, for low-cost manufacture.

LONG

LONG MANUFACTURING DIVISION
BORG-WARNER CORPORATION
Detroit 12 and Windsor, Ontario

TORQUE CONVERTERS • CLUTCHES • RADIATORS • OIL COOLERS

BUT THEY FORGOT TO COLLECT THE ADMISSIONS

Biggest fight of the year! The house filled to capacity! But . . . they forgot to collect the admissions.

"Gate receipts" are all-important in the transportation field, too. Unless the system for fare collection is designed to collect every fare, the operator stands to take it on the chin in lost revenue.

To combat this loss, Johnson enters the ring with the new Model KC fare box illustrated. After registering the coins and tokens, this unit automatically sorts them into the famous Universal Johnson Changer. Changer barrels of greater capacity are equipped with an over-flow to prevent jamming. A quick audit feature empties individual barrels instantly. Changer and over-flow are equipped with locking device for driver relief. Changer triggers are rubber covered for new ease of operation.

Other features include: Modernized inspection cage with indirect lighting of both inspection plate and cyclometers through Plexiglas beam transmission; simplified motor drive and timing for reduced maintenance; light-weight, non-corrosive case; push button, electric-impulse-type dump plates; independent, electrically-operated cyclometer for transfer or passenger count; pedestal mounting with adjusting features to aid both operator and passenger. Overall dimensions: 13" x 7¼" x 24".

Write for brochure "Your Profit Future in Fare Collection."

JOHNSON FARE BOX COMPANY • Subsidiary of Bowser, Inc.
4619 North Ravenswood Avenue, Chicago 40, Illinois
New York Office: 420 Lexington Avenue, New York 17, N. Y.

If a motor's worth a pull-down

...it deserves pistons of

ALCOA LO-EX!

FULL COMPRESSION!

NO HOT SPOTS!

EASY ON GAS AND OIL!

Make every engine overhaul *fast!* You'll keep 'em out of the shop and on the road when you repower with aluminum pistons marked ALCOA LO-EX.

This familiar trademark is your guide to tough, heat-treated aluminum pistons, made of low-expansion alloy. You'll get full compression, with a close piston fit at all running temperatures. Cool, quiet power, because ALCOA LO-EX dissipates heat fast. No thinned-out lubricants!

For a sound investment in revenue mileage, insist on replacement pistons of ALCOA LO-EX, cast by Alcoa, finished by famous piston makers. ALUMINUM COMPANY OF AMERICA, 1846D Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA

Aluminum Pistons of ALCOA LO-EX

Out in Front for the long haul

We know your equipment has got to be *tough* to stand the rigors of long hauls, heavy loads, violent weather. And the *batteries* you put in your vehicles have got to be tough, too.

Like the Delco Heavy-Duty battery! That's a job that is made for your business – it's *designed* for heavy-duty service and *constructed* for extra long life. That's why it's now being used as original equipment on America's leading trucks and buses.

Built to Give
Low-Cost Balanced Performance

Delco-Remy's nearly 50 years' experience in producing the finest automotive electrical equipment has resulted in Delco batteries having the *balanced performance* necessary for the efficient and low-cost operation of the entire electrical system of a truck or bus. Extra large plates, microporous rubber separators and genuine hard rubber cases contribute to the long, *dependable* service for which Delco batteries are famous.

Delco's production capacity and nationwide distribution system assure ample stocks of *fresh* batteries.

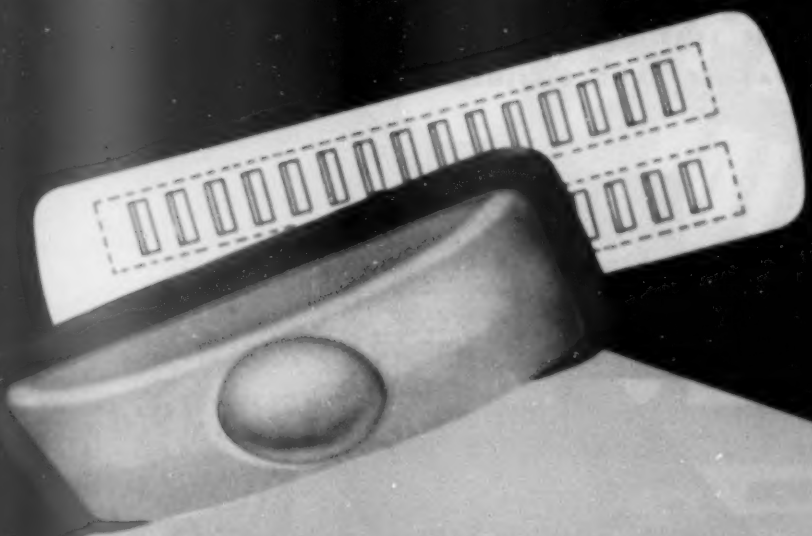
DELCO Heavy-Duty BATTERIES

DELCO BATTERIES—A UNITED MOTORS LINE

Available Everywhere Through UNITED SERVICE MOTORS *United Motors Distributors*

THE MODERN INCANDESCENT SYSTEM

ONE FIXTURE FOR ALL LOCATIONS . . . NO POSITIONING



BALANCED BAND LIGHTING

NEAREST APPROACH TO FLUORESCENT... AT THE COST OF INCANDESCENT

Chase the shadows . . . . eliminate "out-of-bounds" lighting . . . boost rider satisfaction with the new Keystone Balanced Band Lighting.

This modern incandescent answer to passenger comfort provides glareless, uniform light throughout the interior of any type of bus with only one type of fixture. Broad bands of even intensity flood the seating area . . . illuminate the entire reading section irrespective of seat location. Keystone Balanced Band Lighting offers bus builders and operators alike, these advantages:

- One type of fixture for entire lighting system
- Simplified stocking problems
- Easier installation . . . eliminates locating fixtures in relation to seats
- Allows changes in seating plan without changes in lighting
- Abundant light for car cards and headlining
- Dustproof gasket protection
- Stainless steel hinged door for durability

Look into the possibilities of the savings you can make with this new Keystone Balanced Band Lighting, and you'll be taking your first step to more profits.

1 KEYSTONE INCANDESCENT LIGHTING
2 KEYSTONE FLUORESCENT LIGHTING
3 HUNTER SIGNS
4 KEYSTONE DIRECTION SIGNALS
5 KEYSTONE EXTERIOR LIGHTS
6 KEYSTONE SIGNAL SYSTEMS

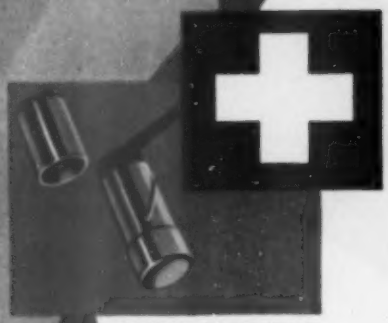
ELECTRIC SERVICE MANUFACTURING CO.

1713 CAMBRIA STREET PHILADELPHIA 32, PA.

you improve appearance, improve service, cut maintenance costs with **GENUINE LEATHER**

THE SEAT COVERING OF DURABILITY AND DISTINCTION

GENUINE LEATHER lasts longer . . . actually improves in appearance with use and age



GENUINE LEATHER is stain resistant . . . sanitary

GENUINE LEATHER is easy to clean . . . with just soap and water

You can make the seating of your buses more attractive and inviting by covering them with Genuine Leather, available in a wide range of smart colors and interesting grains. You can save on maintenance costs because Genuine Leather does not collect and hold dirt, washes easily with soap and water, is fire and stain resistant, sanitary and moth-proof. You gain in the long run because the mile upon mile of service it gives makes Genuine Leather the economical material for upholstering all types of vehicles used in mass transportation.

THE UPHOLSTERY LEATHER GROUP

TANNERS' COUNCIL OF AMERICA · 100 GOLD STREET · NEW YORK 7, N. Y.

American Leather Manufacturing Company, Newark, N. J. · The Ashtabula Hide & Leather Company, Ashtabula, Ohio · Blanchard Bro. & Lane, Newark, N. J. · Delaware Tanning, Inc., New York, N. Y. · The Eagle-Ottawa Leather Company, Grand Haven, Michigan · The Lackawanna Leather Company, Hackettstown, N. J. · Rudel Leather Manufacturing Company, Newark, N. J.

3.06¢ PER MILE

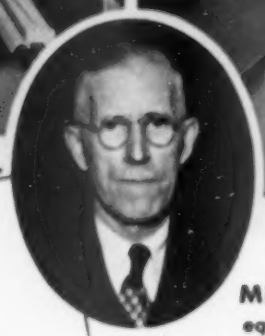
IN FAVOR OF

GM DIESELS

LOUISVILLE RAILWAY CO. finds modern power is better than having a Kentucky Derby winner

Spic-and-Span Housekeeping . . .

. . . Results in Better Maintenance



THE LOUISVILLE RAILWAY COMPANY
LOUISVILLE 2, KY

March 10, 1950

OFFICE OF THE PRESIDENT

Mr. A. S. McEvoy, Dist. Rep.
GMC Truck & Coach Division
General Motors Corporation
St. Louis, Missouri

Dear Mr. McEvoy:

In response to your recent inquiry, I am pleased to send you herewith comparative data on the motor bus costs of The Louisville Railway Company.

The average cost per mile for depreciation, maintenance, and fuel of our 177 GM Diesels, during 1949 was 5.06 cents less than the average for our fleet of 100 gas buses of comparable age and size.

As the need for lower costs becomes more acute, the savings on GM Diesels are increasingly welcome. If the mileage operated by the aforementioned gas buses had been operated by GM Diesels, a saving of over $150,000 would have been effected. Consequently, we are endeavoring to use our Diesels to the greatest extent possible.

Yours very truly,

John H. Buckley

John H. Buckley,
President

MR. T. A. SMITH,
equipment manager, says:

"Our GM Diesel coach mileage has more than doubled during the past four years. During this same period, our average mileage interval between unit overhauls has increased correspondingly. The simplified, rugged construction of the GM two-cycle Diesel engine means lower parts inventory and less time required for maintenance."

YEAR-AROUND SAVINGS ARE REALLY A PAY-OFF

Down in the bluegrass country, made famous by "Marse Henry" Watterson, the Kentucky Derby, and fine tobacco, the Louisville Railway Co. has set an outstanding pattern for city transportation systems.

Through intelligent planning and progressive action, the company has constantly kept pace with a steadily growing city.

Schedules and routes have been closely studied and revamped to meet the needs of the riders. Maintenance and servicing of equipment is of first importance. The old streetcar barns are now model garages, spic-and-span in cleanliness and efficiency, which is reflected in the splendid mechanical conditions of coach equipment.

GM Diesel Coaches are playing an important role in rendering this service.

177 GM Diesels of 40-45-passenger capacities have been purchased by the company on five Repeat Orders dating back to 1940.

On the adjoining page is a letter from J. H. Bickley, president, in which he says that GM Diesels operate for 3.06c per mile less than a fleet of gasoline coaches of comparable size and age.

Here is the operating record of GM Diesel Coaches at Louisville Railway Company for the year 1949:

Seats	No.	Av. Age 1-50 Yrs.	Mos.	Miles	Fuel, Gal.	Fuel MPG	Fuel 1-10-50 Prices*	Fuel cPM	Maint. Cost*	Mts. cPM	Total cPM
41	47	0	11	1,462,034	238,288	5.07	49,581	3.39	102,281	6.99	10.38
40	10	4	7	317,067	62,733	5.06	10,790	3.40	19,446	6.12	9.52
45	20	3	0	580,754	119,569	4.86	20,566	3.54	32,822	5.65	9.19
41	50	3	0	1,280,002	265,455	4.82	45,650	3.56	64,800	5.06	8.62
45	50	1	0	1,561,292	325,000	4.80	55,900	3.58	60,152	3.85	7.43
Total	177	4	3	5,202,549	1,061,072	4.90	182,504	3.51	279,641	5.37	8.88

*Cents omitted

You Can Not Afford to be without

GM DIESEL COACHES

OPERATION of obsolete, costly-to-run equipment is economically unsound.

You actually pay for new coaches without gaining any of the benefits.

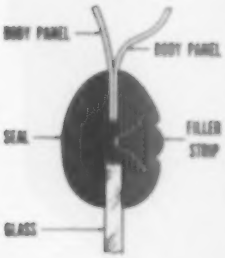
Better revenues invariably come with new equipment. Reduced maintenance and operating costs are assured with new GM Diesel Coaches . . . which bring cents-per-mile savings to meet higher labor and material costs.

Right now you cannot afford to be without GM Diesel economy. Diesel can mean the difference between a profit or a loss.

Ask the 525 operators who have GM Diesel Coaches.

GMC TRUCK & COACH DIVISION GM GENERAL MOTORS COACH GENERAL MOTORS CORPORATION

You just "ease" the strip in ... and forget it



See how easy it is? The seal goes readily into the body panel or adjacent glass. Then the glass slips into the seal. Then the filler strip is zipped into the locking channel. That window or windshield is weatherproofed for keeps. Simple, easy, fast, economical.

When you buy a bus, truck, cab or other vehicle equipped with Inland Self-Sealing Weather Strip, you'll *never* have to worry about leaking windows or windshields. Now and then, of course, you'll have broken glass. But when you do, you'll thank your lucky stars that you installed Inland Strip.

The old way, with ordinary glazing, demanded two men, preparation, subassembly, cementing, reworking and clean-up . . . a long, costly job. But look at the diagram, and see what a cinch it is to do it the Inland way. It costs much less, and returns the vehicle much sooner to profitable operation.

And remember! Inland Strip means positive, permanent weatherproofing . . . in rain, snow, sleet, ice, any weather. For trouble-free satisfaction in service, and faster, lower-cost glass replacement, be sure to specify the use of Inland Self-Sealing Weather Strip in every vehicle you buy.

INLAND MANUFACTURING

Self-Sealing WEATHER STRIP

(Patented)

INLAND MANUFACTURING DIVISION • General Motors Corporation • DAYTON, OHIO

When we talk in terms of a big

52% SAVING

IN BATTERY OPERATION . . .

it's time for You to ACT!

• TODAY, "competition" is keen again, in your field as in all others. You've got to cut overhead and reduce operating expenses. So, any guarantee of SAVINGS makes you sit-up-and-take-notice . . . especially a big 52% saving in battery operation. Here is the proof, put down in dollars and cents in YOUR POCKET:

Last year the Bowers Heavy Duty Battery was one of the most popular with bus, truck, fleet operators everywhere. The 4B1217 then cost $50.42, carried a 12-month guarantee, which figures to $4.20 per month for battery operation. TODAY the amazing new Bowers 4B-N NIC-L-LYTE costs you only $36.42, but in addition to the $14 saving in cost, it carries a husky 18-month guarantee, which figures out to only $2.02 per month operation. The saving is 52%.

In addition, Bowers NIC-L-LYTE Batteries have been in operation a MINIMUM OF 10 TIMES LONGER than other well-known fleet batteries *without requiring the addition of water* . . . and time saved in water "checking" means time saved on-the-run! All these advantages mean . . . IT'S *TIME* FOR YOU TO ACT!

FULLY GUARANTEED
for 18 Months
or 75,000 Miles

BOWERS

BATTERY & SPARK PLUG CO. • MAIN OFFICE, READING, PA.

Almost a ½ million miles for 4 busses...

without a single ring replacement!

Mr. K. Doukas, Vice-president and General Manager of the Marathon Bus Lines, Inc., of South Amboy, New Jersey is quite impressed with his Gulflube Motor Oil H.D. record for the past 18 months.

Here you see him showing his notes to a Gulf Sales Engineer. Included in the Marathon Bus Line of 16 pieces of equipment are 4 Diesels. These run on schedules which cover more than 9,000 miles a month.

Each one of his four Diesels has gone more than 120,000 miles before any rings were replaced! That's almost ½ million miles for the four busses!

Many other executives such as Mr. Doukas are enthusiastic about the results they are obtaining with Gulflube Motor Oil H.D.

Gulflube Motor Oil H.D., you see, is an outstanding heavy-duty type oil. It not only provides proper lubrication, but keeps engines clean as well. It has a rich paraffin base.

It provides a particularly strong oil film—the kind of film that insures superior lubrication under the toughest operating conditions.

Insures better compression

A high-quality detergent motor oil, it helps keep rings clean and free, insuring better compression and proper oil control.

Furthermore, the low pour point and high viscosity index of this oil assure minimum drag when starting.

Why not find out how Gulflube Motor Oil H.D. can help you reduce maintenance costs? Contact your nearest Gulf Office today and have a Gulf Sales Engineer call.

GULF

GULF OIL CORPORATION · GULF REFINING COMPANY

Gulf Building—Pittsburgh, Pa.
Sales Offices—Warehouses—Located in principal cities and towns throughout Gulf's marketing territory

Announcing the BECK 1950

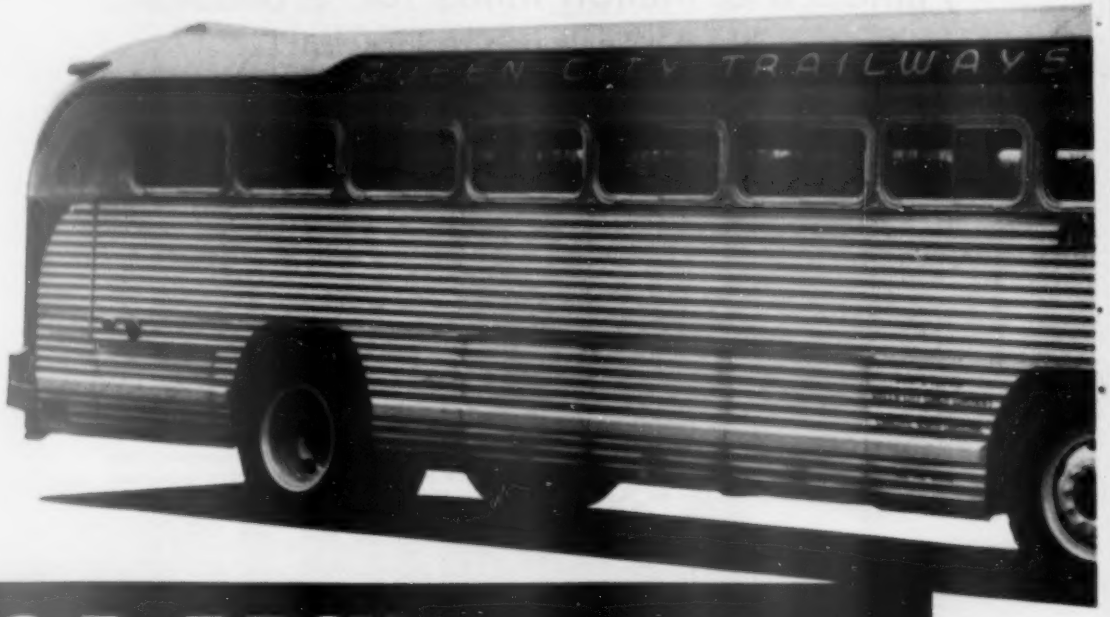
QUALITY TAKES NO HOLIDAY

When you handle the new 1950 Beck SILVERLINER, its sparkling performance and easy, quiet diesel power speaks quality to you. Its solidity, stability and safety on the road will impress you—and as time goes by, you'll find the 1950 SILVERLINER kind of dependability to be new to your experience—unless, of course, you've operated Beck buses before.

Quality is the answer to all—quality that never takes a holiday. Quality of engineering, of materials, and of manufacturer, that have been Beck's watchwords down through the years.

And, on top of all this, you have all the power you want—and economy too, from the new 200 H. P. Big Cummins Diesel power plant.

We invite you to see and drive one of these new 1950 Beck SILVERLINERS.



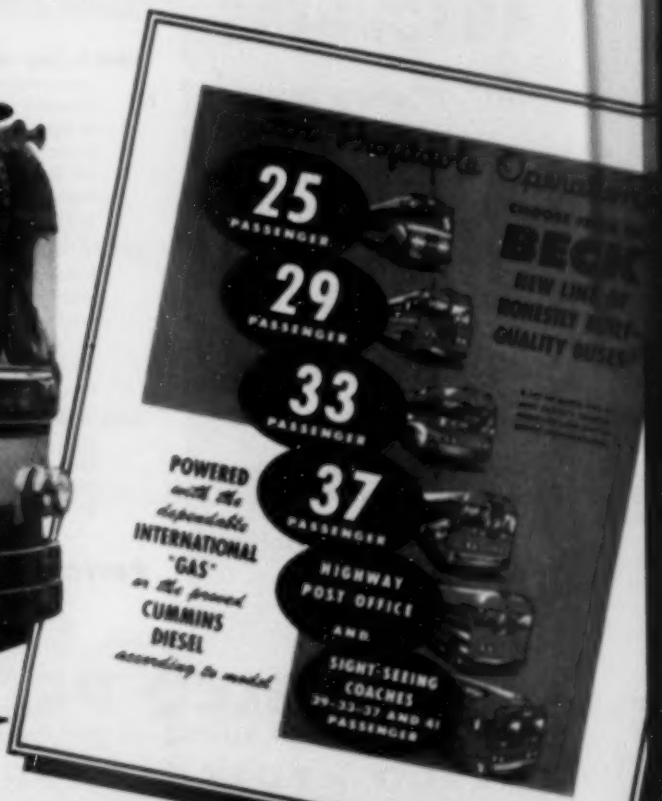
C. D. BECK *and Company, Inc.*

SIDNEY, OHIO, U. S. A.

DIESEL SILVERLINER

SPECIFICATIONS—

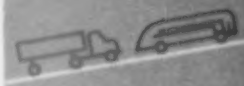
Power Plant Cummins NHB-600 Diesel engine, 743 cu. in. 200 H.P. at 2100 R.P.M. Engine installation provides complete driver's inspection and convenient accessibility for ready maintenance. All mechanical units are of the heavy duty bus type; Timken axles, Fuller transmission, (four speed direct drive), Ross steering, Leece-Neville electrical system. *Interior*—Spacious pullman vestibule entrance, new type seats foam rubber cushion and backs, new improved fully adjustable driver's seat, stainless steel interior trim with wood grained panelyte below windows and Prima Vera panelyte ceiling, extra large underfloor baggage compartments. *Exterior*—Full stainless steel fluted Silversides. *Air-Conditioning*—Tropic-Aire-Carrier air conditioning optional.



BECK BUILDS A WIDE RANGE OF COACHES

FREIGHT AND PASSENGERS
BOTH MOVE SMOOTHLY ON THE

DELCO LINE



SHOCK ABSORBERS

that fit every need!

HERE'S ONE REASON . . . The roughest road is smoother with Delco Shock absorbers. Freight and passengers ride better . . . are subjected to fewer bumps and jolts, less wear and tear. Delco—and only Delco—builds all types of shock absorbers to meet every need! Direct acting, double acting, cam and lever, single acting and knee action.

HERE'S ANOTHER . . . Long years of experience have given Delco the engineering knowledge to use their production facilities to the best advantage . . . to time deliveries exactly to your schedule. United Motors Service makes Delco replacement units and parts available throughout the country.

AND ANOTHER . . . You'll find the Delco Line smooths out the operation of your business. Delco shock absorbers are built to precise tolerances . . . built to last longer . . . built to do a better job.

Get Action P. D. Q.—
PERFORMANCE · DESIGN · QUALITY
Sign on the Delco Line

UNITED SERVICE MOTORS

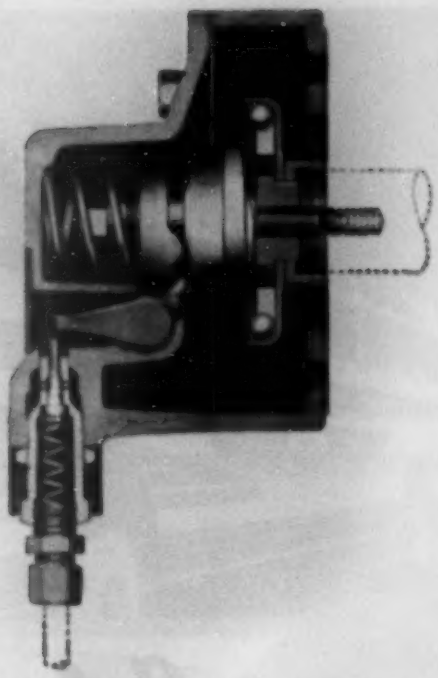
DELCO SHOCK ABSORBERS
A UNITED MOTORS LINE
Available Everywhere Through
UNITED MOTORS DISTRIBUTORS

DELCO PRODUCTS

DIVISION OF GENERAL MOTORS CORPORATION, DAYTON, OHIO

DELCO HYDRAULIC SHOCK ABSORBERS

"NO-LOAD" STARTING... and 17 other features... give you more air for your money



For heavy-duty commercial service, a DeVilbiss Air Compressor, in sizes up to 15 horsepower, gives you more air for your money, gives you years more service with practically no maintenance expense.

Years of extra life are added to DeVilbiss Air Compressors by "No-Load Starting" . . . the feature that lets the compressor get up to speed without laboring under pressure. This means less wear on bearings, motor, and other parts.

This feature, plus 17 others found in combination on no other unit, enables DeVilbiss Air Compressors to give you more air per dollar, and to save money for you year after year.

Let the DeVilbiss distributor show you the money-saving features of DeVilbiss Air Compressors in sizes from 1 to 15 horsepower. He can also supply you with DeVilbiss Air and Gas Hose, Paint Spray Equipment, and Service Guns.

THE DeVILBISS COMPANY • Toledo 1, Ohio
Canadian Plant: WINDSOR, ONTARIO

DE VILBISS *means* Quality *in all four . .*

★ AIR COMPRESSORS
★ SERVICE STATION HOSE
★ HOSE CONNECTIONS
★ SERVICE EQUIPMENT

On AEROCOACH'S new sightseeing bus...

Safety Glass

BY PITTSBURGH

● Windshields and windows of Pittsburgh Safety Glass have long been standard equipment among bus manufacturers and fleet operators all over the country. So it was only natural for the makers of this unique type of bus to bring their unique glazing problems to Pittsburgh.

Their plans to provide the utmost in passenger comfort and riding pleasure included more extensive vision—through long curved roof lights—than was possible even with the existing large clear side windows and wide curved windshields.

These roof lights not only provide "sightseeing" vision over a much greater range, but they also protect passengers from the sun's excessive heat and glare. The roof sections—the largest glass lights ever made for a bus—are Solex Duplate, Safety Glass made with Solex Heat Absorbing Plate Glass, a new Pittsburgh development for the transportation field.

This is another good example of the way Pittsburgh provides new and better Safety Glasses for manufacturers of new and better busses, another good reason why you should standardize on Pittsburgh products when you need Safety Glass for new vehicles or for replacements.

Constant research, outstanding equipment and years of experience assure the high quality of every piece of Pittsburgh Safety Glass. Near you there is a member of our national system of branches and dealers from whom you can get the glass that bears the Pittsburgh trademark. Pittsburgh Plate Glass Company, 2083-0 Grant Building, Pittsburgh 19, Pennsylvania.

DUPLATE
A S W S
SAFETY PLATE

Look for one of these trade marks, etched in the corner of the glass.

DUOLITE
A S
SAFETY WINDOW

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

FIRST CLASS
PERMIT No. 101
(Sec. 34.9, P.L.&R.)
HARVEY, ILL.

BUSINESS REPLY CARD
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

4c-POSTAGE WILL BE PAID BY—
WHITING CORPORATION
HARVEY, ILLINOIS
U. S. A.

WHITING
BUS WASHER

To meet your particular requirements, Whiting Bus Washers are available in a number of design variations—with side brushes only or top and side, roof, and roof brushes. Mail the card.

WHITING CORPORATION, Harvey, Illinois. Offices in Chicago, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, and St. Louis. Agents in other principal cities. Canadian Subsidiary: Whiting Corporation (Canada) Ltd., Toronto, Ontario. Export Department: 30 Church Street, New York 7, N. Y.

A BUS WASHER THAT *Exactly* SUITS YOUR NEEDS

TYPE C
Basic Model of the Whiting Bus Washer. Washes sides and windows.

TYPE CE
Addition of Bus Brushes on basic model—for cleaning sides and windows—for buses only.

TYPE CE
Addition of Bus Brushes on basic model—for cleaning roofs, sides, and windows—for trolleys and trolley buses.

TYPE CR
Roof brushes may be added to basic design for cleaning roofs, sides, and windows.

TYPE CER
Combination unit handles sides, windows, roofs, and roofs—a popular type.

TYPE RE
Roof and eave unit may be added to present Model C installations.

You can choose a Whiting Bus Washer with a brush arrangement that exactly meets your needs whether you operate buses, trolleys, trolley buses, or trucks. The Whiting Bus Washer is a permanent moneysaving tool that eliminates the griefs inherent in old-fashioned, costly, intermittent, hand-washing methods. No modern transportation system can afford to overlook this new approach to efficient maintenance and good customer relations. Send the post card today for more information.

WHITING CORPORATION, Harvey, Illinois

THE WHITING BUS WASHER

Gentlemen:

Please send me complete details on the Whiting Bus Washer Model I have checked below.

☐ TYPE C ☐ TYPE CE ☐ TYPE CE ☐ TYPE CR ☐ TYPE CER ☐ TYPE RE

FIRM NAME and POSITION

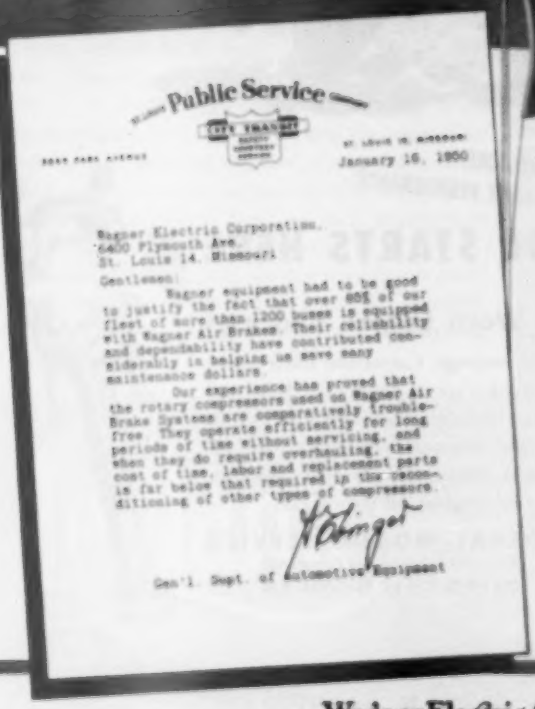
NAME _____

ADDRESS _____

CITY and STATE _____

57-430

Wagner Compressors SAVE US MANY AIR BRAKE MAINTENANCE DOLLARS *In Our Large Bus Operations*



Public Service

St. Louis Public Service Company

January 16, 1950

Wagner Electric Corporation,
6400 Plymouth Ave.
St. Louis 14, Missouri

Gentlemen:

Wagner equipment had to be good to justify the fact that over 80% of our fleet of more than 1200 buses is equipped with Wagner Air Brakes. Their reliability and dependability have contributed considerably in helping us save many maintenance dollars.

Our experience has proved that the rotary compressors used on Wagner Air Brake Systems are comparatively trouble-free. They operate efficiently for long periods of time without servicing, and when they do require overhauling, the cost of time, labor and replacement parts is far below that required in the reconditioning of other types of compressors.

A. Ebinger

Gen'l. Dept. of Automotive Equipment

The foresight and ability of Mr. Adam Ebinger, General Superintendent of Automotive Equipment, St. Louis Public Service Company, in selecting equipment for its reliability is greatly responsible for his company winning the coveted M. E. Transportation Award for the fourth consecutive year. St. Louis Public Service Company keeps careful check on the performance of all equipment. These records prove that Wagner Air Brakes give highly satisfactory performance and that the Rotary Air Compressor—the heart of the Wagner Air Brake System—is responsible for their economical operation.

Write for Bulletin KU-10. It gives complete information.

Wagner Electric Corporation

6401 Plymouth Avenue, St. Louis 14, Mo., U. S. A.

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID ... Wabco ... CoMaX BRAKE LINING ... AIR BRAKES ... TACHOGRAPHS ... ELECTRIC MOTORS ... TRANSFORMERS ... INDUSTRIAL BRAKES

SELF-CONTROL STARTS HERE

AND TO RESTORE
ENGINE PERFORMANCE

OIL-CONTROL STARTS HERE

To Stop Oil-Pumping, Replace Worn Engine Bearings

When an engine is sluggish on pick-up and always seems to drag that means oil pumping—and oil pumping means worn connecting rod and main bearings. Worn engine bearings let excess oil reach combustion chambers. It burns to motor fouling carbon on pistons, spark plugs, valves and rings. The best of new rings can't control oil pumping caused by worn bearings. Correction starts where the trouble starts. Always check for and replace worn bearings. To restore power, pep and economy, replace in sets with Federal-Mogul Oil-Control Bearings. They are engineered for the job!

FEDERAL-MOGUL SERVICE
(Division of Federal-Mogul Corporation)
DETROIT 13, MICHIGAN

control oil-pumping where it starts—REPLACE WITH

FEDERAL-MOGUL OIL CONTROL BEARINGS

From BRITAIN'S largest builders of heavy-duty transport

1

1. The Leyland M.C.W. "Olympic" — one of a range of underfloor, diesel-engined buses of integral construction.
2. A Canadian-assembled "Comet" semi-trailer, unsurpassed in its class for power, speed and economy.
3. A Leyland "Tiger" — typical of many hundreds in operation.
4. For use in the Offshore—a special self-loading vehicle based on the Leyland Super Hippo.

2

3

See them at – THE BRITISH AUTOMOBILE AND MOTOR CYCLE SHOW IN NEW YORK

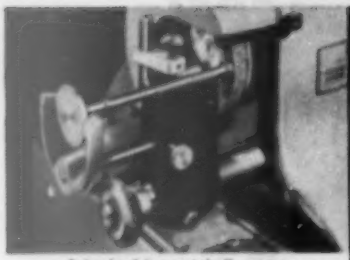
There are Leyland trucks for medium capacity and heavy-duty services and super duty trucks for the toughest of hauls ..... modern trucks, dumpers and tractors ..... left or righthand controlled. Leyland bus chassis ranging from 26ft. to 35ft. long are designed to meet all types of passenger transport requirements. Both truck and passenger chassis are powered with direct injection diesel engines which have, as their outstanding characteristic, exceptional fuel economy.

These standard diesel engines are now available as truck and bus power units and are also supplied, suitably adapted, as complete power installations for industrial and marine purposes.

Leyland

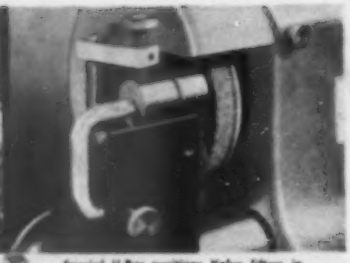
LEYLAND MOTORS LIMITED

4



Swing head is mounted off center to grind small crown on Valve butt.

Rocker Arm faces are ground accurately on side of grinding wheel.



Special U-Bar positions Valve Lifters in Swing Head for precision face grinding.

Snap-on* WET VALVE REFACER

MAKES VALVE SERVICE WORK *Easy and Profitable*

Every accessory required to do a complete valve reconditioning job is included as standard equipment with this machine — there are no expensive additional parts to be added. The shop owning VS-100 Snap-on Valve Refacer can do an expert job on valve face angles from 0° to 90° on any valve up to 4" face diameter and 9/32" to 11/16" stem diameter.

A Micrometer valve depth gauge provides accurate grinding of Ford mushroom valves. Valve tappets and rocker arms are surfaced easily and quickly. Write for special illustrated folder.

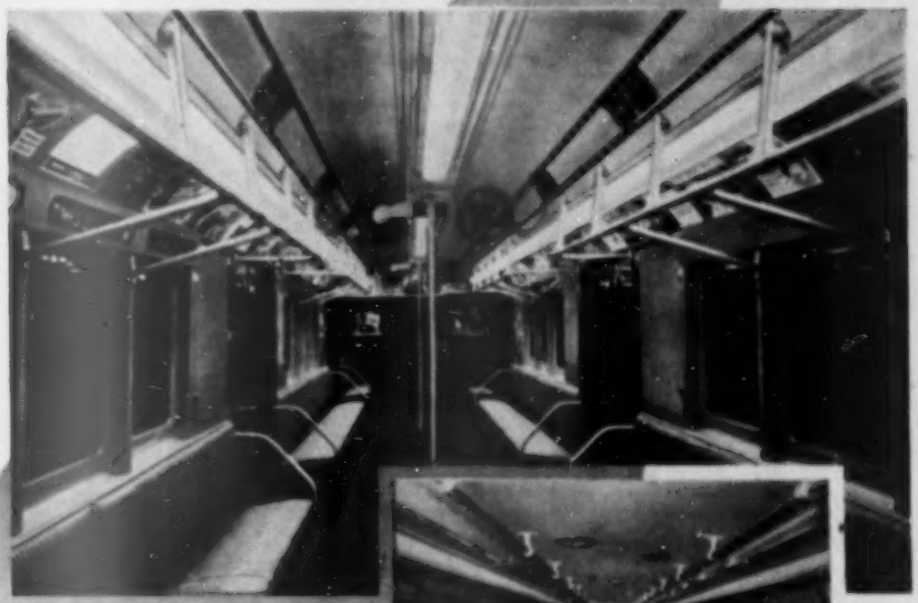
*Snap-on is the trademark of Snap-on Tools Corp.

Valves held to accuracy of .001" at distance of 1" from spindle nose.

Sturdy Roll-Cab provides ideal mounting for Valve Refacer.

SNAP-ON TOOLS CORPORATION
8040-D 28TH AVENUE
KENOSHA, WISCONSIN

650 NEW YORK SUBWAY CARS MODERNIZE WITH FLUORESCENT



And that's not all . . . In Brooklyn, 200 Trolley Coaches also go their shining way, attracting wide-spread attention and enthusiastic approval.

Yes, in Chicago, in Cleveland, and up in Canada . . . On buses, P.C.C. cars, subway cars . . . Cheerful, bright and modern fluorescent is being installed.

Stores, offices, factories and railroad trains have changed from incandescent to fluorescent . . . Now transit vehicles are modernizing with more efficient fluorescent controlled by Luminator prisms and lenses to prevent glare and increase intensity.

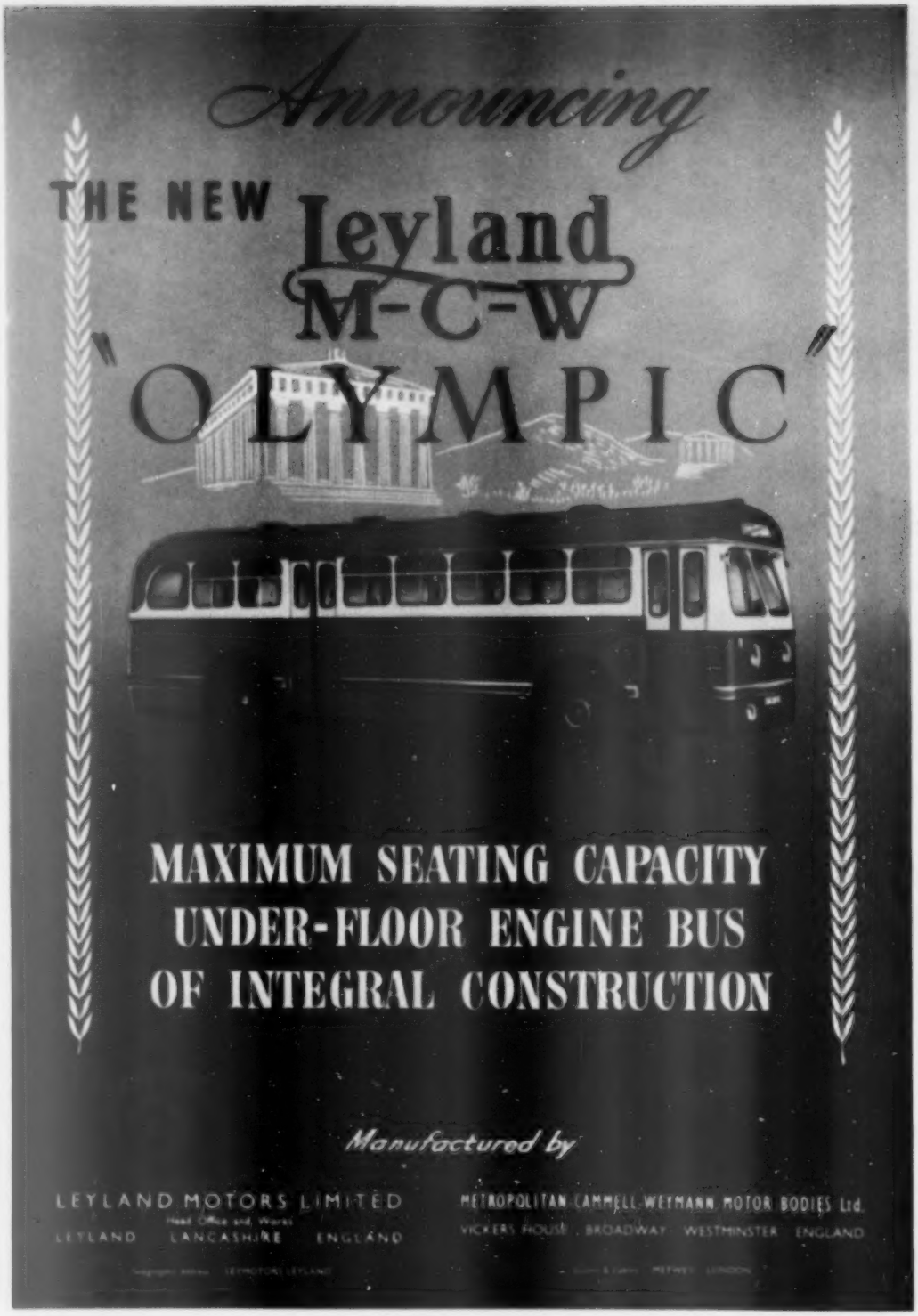
Brooklyn Trolley Coach

Chicago Motor Coach

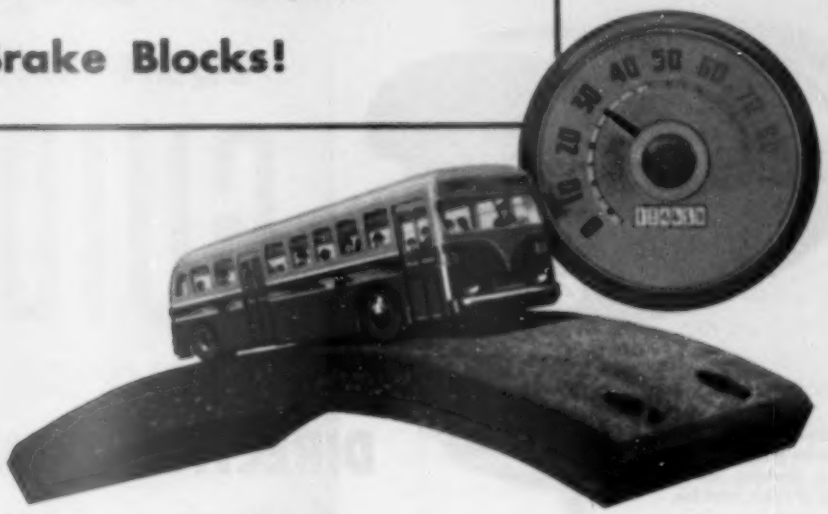
LIGHTING ENGINEERS DESIGNERS LUMINATOR inc. MANUFACTURERS

120 NORTH PEORIA ST., CHICAGO 80, ILLINOIS

IN CANADA: RAILWAY AND POWER ENGINEERING CORP.


Announcing
THE NEW Leyland M-C-W
"OLYMPIC"
MAXIMUM SEATING CAPACITY
UNDER-FLOOR ENGINE BUS
OF INTEGRAL CONSTRUCTION
Manufactured by
LEYLAND MOTORS LIMITED
Head Office and Works
LEYLAND LANCASHIRE ENGLAND
METROPOLITAN CAMMELL-WEYMANN MOTOR BODIES Ltd.
VICKERS HOUSE, BROADWAY, WESTMINSTER, ENGLAND

There's a reason for the Extra Service Life in Bendix Eclipse Brake Blocks!



It's all a matter of experience!

When you consider the fact that Bendix Eclipse Brake Blocks represent more than 20 years of specialized experience, it is small wonder they deliver so many extra stops and extra miles of service life. This unbeatable background of technical know-how has resulted in brake blocks *exactly* fitted for the job—no compromising, no guesswork enters the picture, because Bendix Eclipse engineers know your problems to the letter. There *is* a difference in brake blocks. Take advantage of it—assure the extra performance resulting from more than 20 years of constant improvement—install Bendix Eclipse Brake Blocks.

BENIUM *heat-resisting material is the secret ingredient developed by the Marshall-Eclipse Division of Bendix and used exclusively in Eclipse brake linings and heavy-duty brake blocks.*

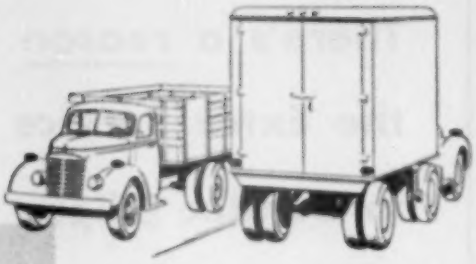
MARSHALL-ECLIPSE DIVISION OF
TROY, NEW YORK

Bendix Eclipse Brake Blocks

A PRODUCT OF THE GREATEST NAME IN BRAKING

SAFETY-

FRONT AND REAR!



The illuminated plastic control lever blinks on and off while the signal is flashing its friendly warning to other vehicles.

EQUIP WITH

GUIDE

HEAVY-DUTY

DIRECTION SIGNAL

for trucks and buses

Guide heavy-duty signals are manufactured especially for bus and truck use. They are easy to install, inexpensive to buy. Their flashing amber arrows are designed to be seen—front and rear! . . . can be safely relied upon to give effective, warning signals on sunny days or stormy nights.

Guide direction signals remove the risk of hand and arm signals . . . are durably constructed of finest materials to give long years of dependable service.

The Guide double-face unit (shown here) for front fender mounting, cautions both approaching and following vehicles. Single-face units, for either front or rear mounting, are also available. All have visors and lenses to brighten the signal and increase 'round-the-clock visibility.

GUIDE FOG LAMPS

Feature sturdy flexible design . . . suitable for all makes of trucks and buses. Are packaged in pairs, complete with fused switch, wiring and interchangeable mounting for ready attachment to Splash Pan, Bumper Bracket or Front Fender. Here are *universal* lamps—used throughout the nation to improve visibility under adverse weather conditions.

GUIDE LAMP—A UNITED MOTORS LINE
Available Everywhere Through
UNITED MOTORS DISTRIBUTORS

UNITED SERVICE MOTORS

Guide LAMP

Division of General Motors
Anderson, Indiana

When COMFORT comes first...

The first choice is

LUMITE!

It's natural to sit back and relax on Lumite. For this fine fabric—woven of saran plastic—excels in comfort as it does in beauty and wear. It's sleek, smooth . . . won't cling to clothes. It "breathes" . . . lets air circulate freely . . . is always cool in summer, never clammy in winter. For new equipment or renovation jobs, specify Lumite . . . the fabric that keeps everyone sitting pretty!

First in beauty! . . . in comfort! . . . in wear!

LUMITE — *the feature fabric!*

TOUGH! Scuff-proof. Can't rot or mildew. Non-inflammable.

COMFORTABLE! It breathes—lets air circulate freely, insuring the ultimate in seating comfort. Never sticky in warm weather nor clammy in cold.

EASY TO INSTALL! Firm, strong—yet pliable. Easy to shape and cut.

STAYS TRIM! Always keeps its glove-snug fit. Won't sag, stretch, wrinkle, "cup" or cling to clothes.

LESS MAINTENANCE! Never needs to be removed for thorough cleaning. Cleans easily with soap and water or cleaning fluid. Neither food, grease, dirt nor gum can harm it.

See the beauty of Lumite for yourself! Get free fabric samples and a full-color photo of an actual Lumite installation. Write to Dept. BT-02.

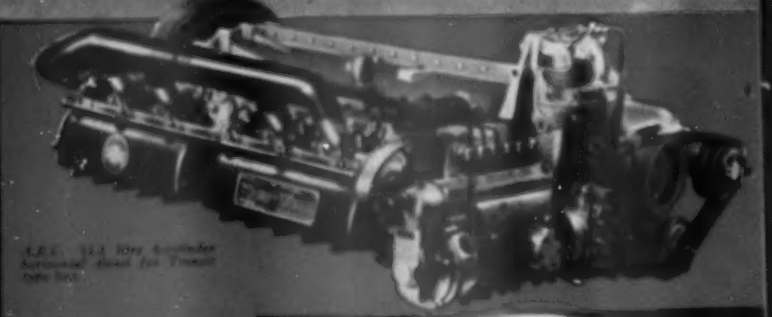
*Registered Trade-mark

LUMITE DIVISION
CHICOPEE MANUFACTURING CORPORATION OF GEORGIA
40 WORTH STREET • NEW YORK 13, N. Y.

CUT COSTS !

USE

DIESEL POWER



A.E.C. 11·3 litre 6-cylinder horizontal diesel for Transit type bus.

A.E.C. 7·6 litre 6-cylinder vertical diesel for Road Transport type work.

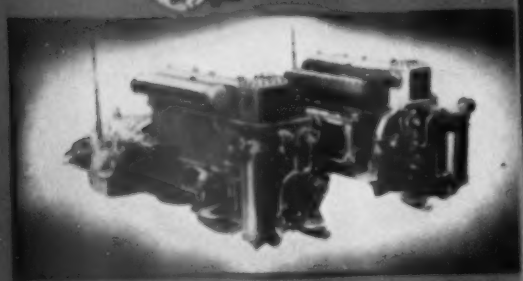
From the vast A.E.C. organisation in Britain comes the motive power for transport on land and sea in most parts of the globe, as well as stationary power units for countless factories. Apart from their other activities, A.E.C. have produced in 20 years diesels aggregating a total of FIVE-AND-A-QUARTER MILLION HORSE POWER! Since organized road transport was created in London, A.E.C. have been the main suppliers of the chassis which carry 7½ million Londoners daily, from dawn to midnight.

A full range of A.E.C. diesels will be showing at the British Automobile Exhibition.

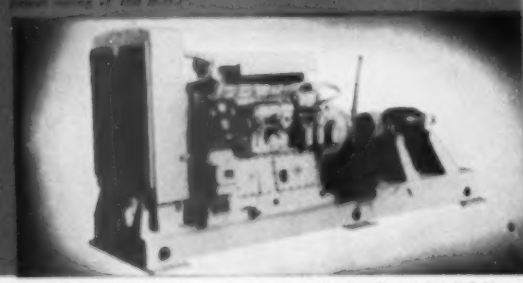
SEE THEM ON STAND 3

British Automobile and Motor Cycle Exhibition,
Grand Central Palace, Lexington Avenue, New York City

APRIL 15-23, 1950



A matched pair of A.E.C. 6-cylinder marine diesels with an individual power rating of 150 B.H.P.



The A.E.C. 9·6 litre stationary diesel develops 100 B.H.P. at 1,500 R.P.M. continuous rating.

AEC

SOUTHALL

CANADA:
The Associated Equipment Co. of Canada Ltd.,
Keefer Buildings,
1440 St. Catherine St. West,
Montreal

DIESELS

For ROAD TRANSPORT MARINE AND INDUSTRIAL WORK

A.E.C. LIMITED SOUTHALL, MIDDLESEX, ENGLAND

Subsidiary of Associated Commercial Vehicles, Ltd., LONDON

BUILDERS OF LONDON'S BUSES

Mr. Businessman!

WHAT WILL THE 1950 CENSUS DO FOR YOUR BUSINESS?

CONSUMER MARKET INFORMATION

The 1950 Census will provide a huge amount of information about the characteristics of the consumer market. It will tell you what kind of income groups live where . . . what they have and what they need in the way of commodities from automobiles to television sets down to plumbing fixtures. The Census is an accurate survey of economic conditions in your market area. It will not only tell you *where* your customers are, but *what they need that you have to sell them!*

It will show where improved transportation and shipping facilities are needed . . . better harbors and waterways . . . stepped-up Public Service.

That is why the 1950 United States Census is vital to your business!

COOPERATION

You know that the Census-Taker is not just "counting heads." He's actually making a survey of existing conditions in industry, business, employment, housing, education. You know census information is as confidential as the vote you cast! Because you know all these things *you'll* cooperate with the Census-Taker in every way when he calls on you.

WHAT ABOUT THE OTHER FELLOW?

But! What about the people who work for you? The man in the shop . . . your own secretary . . . the fellows in the shipping room. Do they know all this about the Census? Chances are some of them do, so the idea is to get the right information across to those who don't!

WHAT'S THE BEST WAY?

If it's possible, call everyone together and talk about it . . . ask questions . . . exchange ideas. If your outfit is too big for that, direct a Census information memorandum to all your employees. Post information on the bulletin boards. Run a Census story in the company house organ. Talk about it. *Every way you can . . . get the people who work for you to cooperate with the Census.*

WHAT DOES THE 1950 CENSUS MEAN TO YOUR EMPLOYEES?

Better schools . . . school buses . . . school lunches. It means finer roads, bridges and highways . . . increased transportation facilities . . . improved safety regulations. It creates more efficient Public Service and furthers adequate distribution of utility services such as telephones, gas, water and electric power. It will help your community plan better parks, playgrounds, recreation areas and housing. It will mean higher living standards and accurate congressional representation. The Census is *everybody's voice in America's future!*

YOU OWE IT TO YOURSELF . . .

Mister Businessman . . . to your business and your community! Put your efforts behind the 1950 United States Census for an even better country to live in . . . the *best* country to do business in!

HELPING THE CENSUS HELPS UNCLE SAM ★ MAKE SURE YOU COUNT IN AMERICA'S FUTURE ★ CENSUS

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NATIONAL SEATS

TRIED AND PROVED OVER THE YEARS

USED AS STANDARD EQUIPMENT BY THESE FAMOUS BUS MAKERS

ACF-BRILL *Mack* **BECK**

Deliveries to Transit and Inter-city operators from coast to coast reflect industry acceptance and dependability of National's quality, design and construction.

PT-130

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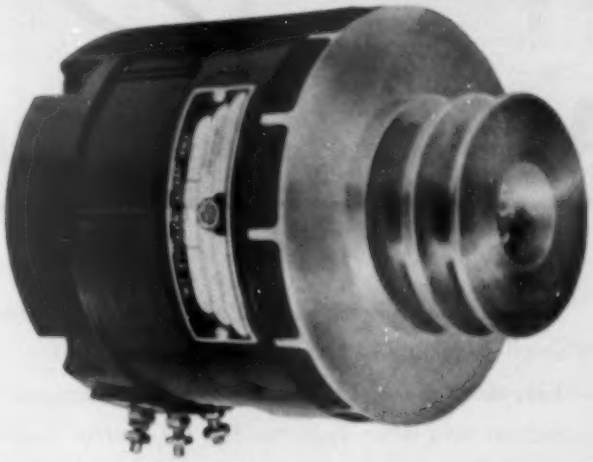
National **SEATING COMPANY**

MANSFIELD • OHIO

(Formerly Ohio Division of Art Rattan Works, Inc.)

America's only time-tested Higher-Output AC-DC Systems



For the MOST in extra power... specify

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AC-DC GENERATING SYSTEMS*

NOW PROVED BY OVER 4 YEARS OF SERVICE ON CITY AND INTER-CITY BUSES!

*14-Volt Systems, consisting of Alternator, Rectifier and Voltage Regulator, in ratings of 60, 80, 100 and 150 amperes. 7-Volt Systems for every requirement up to 80 amperes.

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Pioneer and STILL Quality Leader

CRANKING MOTORS • GENERATORS • VOLTAGE REGULATORS • SWITCHES

Transit Buses

AN ASSET on your lines

Transit Buses are active and effective load builders . . . also effective builders of good public relations.

Easy maneuverability, rapid acceleration provide faster schedules and offer opportunities for shorter headways.

AN ASSET on your books

Transit Buses are built for low operating cost. Their greater maneuverability and faster acceleration provide faster schedules at a lower investment.

Transit Buses are rugged vehicles . . . require less maintenance. These savings are attractive on the books as is the increased revenue from the additional riders attracted.

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Sales Offices
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Transit Buses, Inc.
Subsidiary of
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Transit Buses, Inc.
Thrifty for '50

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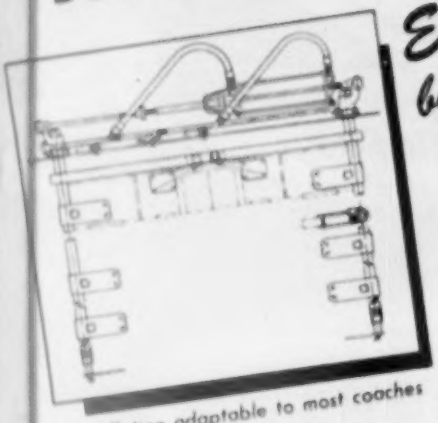
PARISH & BINGHAM DIVISION CLEVELAND

MIDLAND...

BUS DOOR CONTROLS

Everything... but the Doors Themselves!



Installation adaptable to most coaches

- BRAKE INTERLOCK
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- DOOR SENSITIVE EDGES
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- MAGNET VALVES

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Three Great Plants

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Back of the products of "Midland" are these great manufacturing facilities in Cleveland and Detroit, with an engineering and operating organization second to none—ensuring up-to-the minute design and quality.

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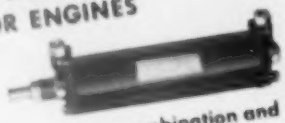
DOOR ENGINES
with safety devices controlled electrically.

Full Pneumatic
DOOR ENGINES



Any combination and Sequence desirable.

A complete line of door control accessories. See your Midland distributor, or write to us for complete information.

The **MIDLAND**

STEEL PRODUCTS COMPANY

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Air and Vacuum POWER BRAKES

World's Largest Manufacturer of AUTOMOBILE and TRUCK FRAMES

Air and Electro-Pneumatic DOOR CONTROLS

reflect...
Pause a moment during a busy day to think about this important revenue factor. *Travel, motion, going somewhere*—a *thrilling experience* when accompanied by *comfort*—Karpen comfort that *adds* to the *enjoyment* of transportation services. Transportation is a convenience, but to be *sold* it must be comfortable and the translation of the word "Karpen" is "comfort" in transportation talk!
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When you think of LPG FUELS

(PROPANE-BUTANE)

think of ACF-BRILL and HALL-SCOTT

PIONEERS FOR 20 YEARS!

- **20 years' experience** in LPG applications . . . with eminently successful results!
- **In addition to the hundreds** of Hall-Scott LPG engines in industrial use, we've furnished and equipped LPG engines for rail motor cars and for hundreds of on-and-off-the-highway heavy-duty trucks.
- **In the past six years alone,** we've built 640 such truck engines. Many more ACF-Brill truck engines have been converted to LPG application by truck operators.
- **LPG-burning ACF-Brill Buses,** with Hall-Scott horizontal under-floor engines, started in service in 1938.

For full information on the advantages of LPG engines, get in touch with the company that knows them . . . *and builds them* . . . from the ground up!

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Smartest
way to lower your cost per mile

To your passengers, the beauty of seat upholstery woven of Firestone *Velon* lies in its gay attractive colors, its interesting patterns and weaves.

To you, the beauty of *Velon* shines forth on the *black* side of your ledger:

Lowered maintenance costs—*Velon* needs no vacuuming or scrubbing. Dirt, grime, stains wipe clean with a damp cloth.

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If you haven't already proved to your company's satisfaction the amazing superiority of fabrics woven of Firestone *Velon*, call your supplier at once and have him show you how *Velon* can save you money on all new installations as well as replacements. Or write Firestone Plastics Company, Yarn Division, Pottstown, Pa., for a list of resources, and information.

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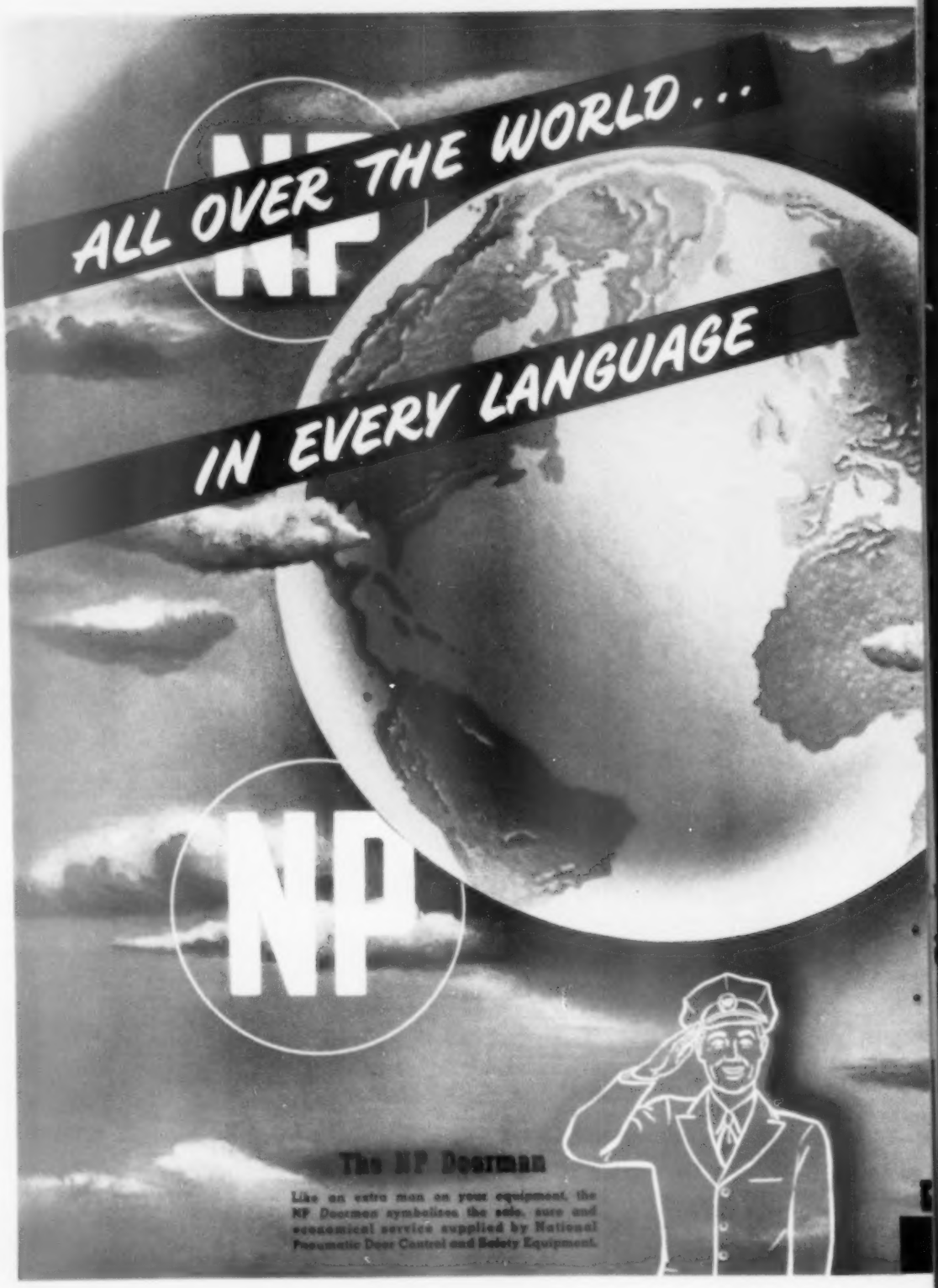
WOVEN OF **Firestone *Velon***

Approved by Good Housekeeping

TRADE MARK


ALL OVER THE WORLD . . .
IN EVERY LANGUAGE
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The NP Doorman
Like an extra man on your equipment, the NP Doorman symbolizes the safe, sure and economical service supplied by National Pneumatic Door Control and Safety Equipment.

National Pneumatic

NP is the WORD for DOOR CONTROL

● Operators in nations the world over — regardless of language — associate the familiar NP trademark with door control. In Brussels and in Boston, in London and Los Angeles — wherever there's transit, there is National Pneumatic equipment.

Such widespread acceptance was not gained overnight. It is the result of NP's outstanding leadership in performance, service, and pioneering enterprise that has contributed every important advance in door control . . . not just locally or briefly but on an international scale during the entire growth of the transit industry. First in the field and still first by far, National Pneumatic is the world's most experienced and largest volume producer of door control and safety equipment.

Today, even more than ever before, operators everywhere and of every size fleet are sure when they rely on National Pneumatic — sure of products that reflect world leadership in door control research, engineering and manufacturing.

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A VITAL PART OF EVERY VEHICLE . . . A SMALL PART OF ITS COST

For Looks and Durability ...DITZLER FINISHES ARE BEST!

It is not surprising that Ditzler Finishes stay so good-looking so long! They're made to give long-lasting, dependable service. • We test them in our laboratories and at every step of the manufacturing process to make sure they provide proper protection and hold their color. We submit them to long field tests to learn what effect sunlight, humidity, salt spray and extremes of temperature have on them.

Our findings are then analyzed, double-checked and measured against the performance of competitive makes by the chemists and technicians of manufacturers who use products of this kind. How highly these experts rate Ditzler quality is best shown by the continuous preference for Ditzler Finishes through nearly fifty years by most of the leading makers of passenger cars, trucks and buses. • You can have no stronger evidence of the superiority of Ditzler Finishes for all your refinishing needs.

Use DITZLER QUICKSET ENAMELS
to give your customers the kind of finishes new cars have!

The same basic formula used in making original finishes for the nation's largest passenger car and commercial body manufacturers is available in air-dry Ditzco Enamels for the refinishing trade. Here is the material to use for customer jobs or used cars. When reduced with Ditzler's Thermoset, DTE-760, Ditzco Enamels may be baked with little or no danger of wrinkling. Available in nearly 1,500 colors from the Ditzler Jobbers in 800 principal cities. These are products you can get when you want them and you will like when you use them.

DITZLER COLOR DIVISION, Pittsburgh Plate Glass Company, Detroit 4, Mich.

PITTSBURGH PLATE GLASS COMPANY

Buses
Painting Aids
Shop Equipment
Bus Parts

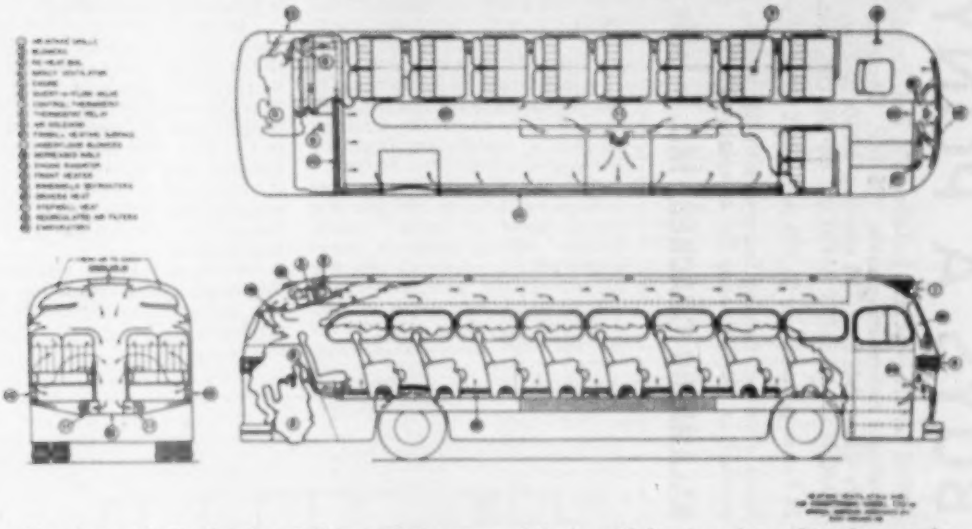
What's New

NEW PRODUCTS FOR THE INDUSTRY

Power Tools
Cleaning Aids
Catalogues
Literature

EDITOR'S NOTE: When writing to a manufacturer about a "What's New" item we would appreciate your saying "I saw it in Bus Transportation."

Aerocoach Heating and Ventilating System



Plan, front and side elevation of diagram of new aerocoach heater with key to various units and accessories.

A RADICALLY NEW METHOD of heating and ventilating, which is being applied in the production of a 37-passenger intercity coach—Model 372-M, has been developed by **General American Aerocoach,** according to George A. Ellis, electrical, heating and ventilating engineer of the Company who supplied the following data on the new system. This new design only came about through the close cooperation and coordination of everyone concerned with motorcoach design before a single element was rigidly determined. In other words, all factors were discussed before any part of the design was "frozen," with the object of meeting favorable reception by operators, drivers and passengers as a great forward step in traveling comfort.

This is made possible by bringing in to the coach an adequate supply of fresh air which is taken in at the front upper section of the coach so as to be free from dust and exhaust odors, warming this air to a temperature controlled by the inside coach temperature and delivering it into the coach over the windows along the entire interior length of the coach.

This system pressurizes the coach so that air is being discharged through two roof ventilators located in the ceiling and out of the coach through any cracks around doors, windows, etc., thereby eliminating cold draughts coming in to cool the passengers along the sides and doors.

It has also been proven that by increasing the rate of change of air the relative humidity in the coach is lowered, thereby practically eliminating the frosting of windows in the coach. The delivery of fresh air over the window surfaces also aids in keeping them clear at all times lending to a safer, more pleasant and vision-free ride.

Using a simple but unique water lines system whereby the hot water from the engine may be diverted all through the engine radiator, all through the heating surface or part through each as the coach temperature requires, the heating surface has available the entire heat output of the engine water at its command. The water returned from the heating surface returns to the top of the engine radiator which insures the necessary cooling before returning to the engine block.

Since the coldest part of the coach is around the outside walls, it is logical that a continuous source of heat that goes clear around the outside of the coach will introduce the heat where it

$6,500 BUYS A PONY CRUISER

THINK OF IT! — $6,500 including 5% Fed. Excise Tax buys a PONY CRUISER with 21 passenger non-reclining seats, 105 H.P. Chevrolet engine, front and rear axles heavy-duty Chevrolet, Ross T66 steering, 6-750x20 tires, 4 speed synchro-mesh transmission. REMOTE GEAR SHIFT IN FRONT OF DRIVER. Exceptional amount of baggage space.

25 Passenger cost only $6,595 including 5% Fed. Excise Tax.

Many other outstanding features with this modern ALL-STEEL PONY CRUISER now in production. Write today for complete details.

KALAMAZOO COACHES, INC. 4400 Lovers Lane, Kalamazoo, Mich.

is most needed. The new Aerocoach does just this. Finned tube and return line are passed under the rear lounge seat, over the wheelhouses and along each side of the coach at the floor level. The maximum of heating efficiency is therefore attained by utilizing a wall of radiant heat around the coach.

To insure the even temperatures throughout the coach blowers mounted on either side of the depressed aisle draw air from the aisle, across under the floor and blow it into a duct the full length of the coach, over the finwall tubes and into the coach directing a gentle warm air movement over the lower section of the body. The natural convection of warm air also rises up the side panels mixing with the fresh air coming down above the windows to give a stimulating fresh air movement without hot blasts.

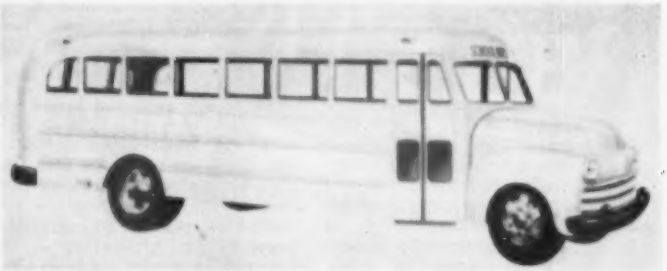
A choice of coach temperatures is made available by the use of a "temperature set down" switch located on the driver's panel which adds a resistance into the control circuit and lowers the control point. Any desirable control point may be attained by inserting the correct thermostat and resistors in the circuit.

In addition to the automatic controls, the driver's panel is equipped with a "full heat" switch which bypasses the automatic controls giving full heat under manual control by the driver.

Under certain climatic conditions, such as sleeting and icing of windshields where the inside temperature is comfortable without further heat requirements, it is desirable to apply heat to the windshield for defrosting or deicing purposes. For this reason the front heater is independent of the main heating system and is controlled by the driver.

The main blowers of the front heater direct the warm air either to the driver's foot compartment to the main coach aisle, to the front door step well or to all three as the demands arise. Heater air in the step well keeps the steps free and clear from snow and ice carried in on the feet of the passengers and helps to overcome the cold air inrush when the front door is open.

Several of the new features of this heating and ventilating system appear to be patentable and are being studied for patent protection.



Superior School Bus

An all-steel safety coach, the 1950 Superior Pioneer, designed for regular pupil transportation by **Superior Coach Corp., Lima, Ohio,** features all welded "Unistructure" frame, better visibility by use of more glass in the windshield and entrance door, more adjustable, form-fitting driver's seat and more conveniently located controls.

In addition, a new U-flanged wrap-around rear bumper is designed to withstand greater impact. New heavily padded passenger seats feature two-tone plastic covers. There are numerous other new features.

Similar changes are incorporated in Superior's other models—Pathfinder, Pacer, and Schooliner.

The Pacer is a smaller version of the Pioneer, for use where capacity needs are smaller and roads narrow. It holds 16 to 20 passengers and has an outside width of 80 inches.

The 1950 Schooliner is an integral-type pusher coach for regular pupil transportation or for use by athletic teams, bands, glee clubs, and other traveling groups.

Roll Holder

A DEVICE known as the Roll Holder which will retain braking pressure on all four wheels after foot pressure has been applied to the brake pedal and released is manufactured by the **General Armature & Manufacturing Co., Lock Haven, Pa.**

The driver of an automotive vehicle with conventional transmission, operates the Roll Holder by a hand control switch fitted with a red indicator light, mounted on the steering column.

For operation of vehicles with automatic transmissions, a foot switch controls the operation of the Roll Holder, and the indicator light is mounted on the instrument panel. When the red light is lit, in either application, it is a signal to the driver that the Roll Holder is functioning.

When the control switch is "on," and it is desired to hold the vehicle firmly, it is not necessary to maintain foot pressure on the service brake pedal. To proceed, flick the control switch to the "off" position, and the brakes are released immediately.

the Oakite way saves time... saves money!

Here are three easy Oakite ways to strip paint, lacquer, enamel. Use any *one of* them to remove as many as twenty coats at amazing speed. And do it safely, economically.

HOT FLOW-ON—With spray-rake, flood surfaces with hot solution of Oakite paint-stripping compound. Paint quickly loosens and flows off. Method recommended where stripping is performed on a large scale.

STEAM-GUN—Surface is wet-down with steam-mixed Oakite paint-stripping solution. Quickly, paint wilts, and is rinsed off. Oakite Gun, which blends stripper with steam, is designed to apply wet-steam rinsing.

COLD SPRAY—Oakite paint-stripping solution is applied under pressure through wide-angle nozzle. Intermittent water-rinses remove loosened paint. Method recommended where facilities are limited.

IF YOU WANT on-the-spot Oakite paint-stripping demonstration, merely call in your Oakite Technical Service Representative. Or write to Oakite Products, Inc., 52F Thames St., New York 6, N. Y. for booklet F 4401, Free.

FREE BOOKLET!

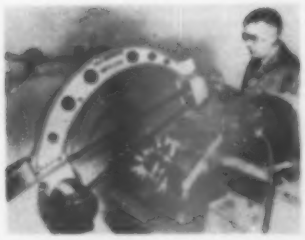
This 36-page Oakite Cleaning Guide tells how to improve *all* your cleaning. Write for FREE copy!

Technical Service Representatives in Principal Cities of U. S. & Canada

OAKITE

SPECIALIZED INDUSTRIAL CLEANING

MATERIALS • METHODS • SERVICE



Lap-Finisher

A PRECISION FINISH of 3 to 7 microinches on crankshaft journals in 5 to 10 seconds is possible, according to the announcement just released on the new "Van-O-LITE" Finisher manufactured by the **Van Norman Company, Springfield, Massachusetts.** It's easily attached to crankshaft regrinders, and is counter-weighted so that it may be easily pulled down into working position, or swung up out of the way.

The Van Norman "Van-O-LITE" Attachment has a longer abrasive which gives a finer, longer-lasting finish that means longer life for shaft and bearings, as well as more actual bearing surface. "Van-O-LITE" is operated by a totally enclosed motor controlled by a foot-switch.

Pin Fitting Machine

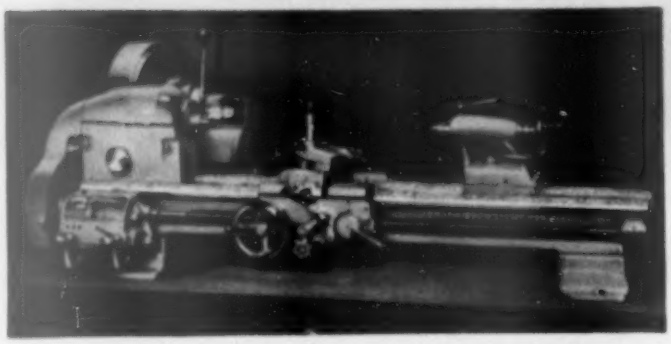
A MACHINE which employs a fly-cutting boring method for the fitting of wrist pins in the service field of the automotive industry, has been designed by the **Tobin-Arp Manufacturing Co., 2845 Harriet Ave., Minneapolis 8, Minn.**

With the TOBIN-ARP Improved Boring Method Pin Fitting Machine it is possible to set a cutter to the manufacturers' specified clearances and bore pin holes in both piston and connect-

ing rod round within one-half of one ten-thousandths, with a finish between four and six micro-inch, the manufacturer states.

This cutter setting is accomplished with a comparator, which is graduated in tenths of thousandths. One of the pins from the set which is to be fitted is placed in the chrome-plated VEE of the comparator and with the use of a knurled knob the comparator is easily set at zero. The pin is then removed and the boring bar, with the cutter which is locked with a friction lock, is then placed in the VEE and with the use of a tool clamp the cutter is forced out to the proper reading to accomplish a cut with the specified clearance, or press fit.

The machine is operated pneumatically and hydraulically. All centering and holding is accomplished with regulator controlled pneumatic pressure, and the feed is actuated by air and stabilized by oil.



South Bend Lathe

PRODUCTION of a new 10" Quick Change Gear Lathe in four bed lengths, is announced by the **South Bend Lathe Works, South Bend 22, Indiana.** A complete line of Tools, Attachments, and Accessories, including a taper attachment, handlever and handwheel collet attachments, collets, a milling attachment, etc., are available for this 10" lathe.

The bed of this new 10" lathe is rigidly constructed of special gray iron with thirty percent steel content added. Three V-ways and one flat way are hand-scraped their entire length to assure precision alignment of the headstock, tailstock, and carriage, states the manufacturer.

Bearings for the headstock spindle are of the replaceable bronze sleeve type.

The quick Change Gear Box supplied on the South Bend Model A Light Ten Lathe provides 48 thread cutting feeds, power longitudinal feeds, or power cross-feeds.

Two types of horizontal drive units are available for this new 10" lathe—a 12-speed (48 to 1435 r.p.m.) drive using a flat leather belt to the headstock, and a 16-speed (52 to 1365 r.p.m.) drive with a V-belt to the headstock.

Torque Wrenches

ADDITION of twelve high-speed PROTO torque wrenches that are controlled by three senses—feeling, sound and sight—has been announced by **The Plomb Tool Company, Los Angeles, Calif.**

A trip lever is set at the desired torque reading, and when the wrench is pulled to this exact reading the lever trips a signal trigger. A strong, definite impulse is imparted to the hand and a loud click is sounded. The resulting sensations of feeling and sound cause the operator to re-

Budd Wheel Distributors
provide the same service described in this advertisement

AKRON—Motor Rim Manufacturers Co.
ALBANY—Wheels, Incorporated
ALBUQUERQUE—Wheels & Brakes, Inc.
ATLANTA—Harris Automotive Service, Inc.
BALTIMORE—H. W. Norris & Sons, Inc.
BIRMINGHAM—Cross-Crawford Wheel & Rim Co.
BOSTON—New England Wheel & Rim Co.

Found

BUFFALO—Frey, the Wheelman, Inc.
CHARLOTTE—Carolina Rim & Wheel Co.
CHICAGO—Stone Wheel, Inc.
CINCINNATI—Rim & Wheel Service, Inc.
CLEVELAND—Motor Rim Manufacturers Co.
COLUMBUS—Hayes Wheel & Spring Service
DALLAS—Southwest Wheel, Inc.
DAVENPORT—Stone Wheel, Inc.
DAYTON—Rim & Wheel Service, Inc.
DENVER—Quinn & McGill Motor Supply Co.
DES MOINES—Des Moines Wheel & Rim Co.
DETROIT—H. & H. Wheel Service, Inc.
FARGO—Wheel Service Company
FORT WAYNE—Wheel & Rim Sales Co.
GRAND RAPIDS—Rim & Wheel Service Co.
HARRISBURG—Standard Wheel & Rim Co.
HARTFORD—Connecticut Wheel & Rim Co.
HOUSTON—Southwest Wheel, Inc.
INDIANAPOLIS—Indiana Wheel & Rim Co.
JACKSONVILLE—Southwest Wheel & Rim Co.
KANSAS CITY—Barbein, Young & Co.
KNOXVILLE—Harris Automotive Service, Inc.
LOS ANGELES—Wheel Industries, Inc.
LOUISVILLE—Auto Wheel & Rim Service
MEMPHIS—Baller Wheel, Brake & Supply Co.
MILWAUKEE—Stone Manufacturing Co.
MINNEAPOLIS—Wheel Service Co.
MOLINE—Mutual Wheel Co.
NASHVILLE—Baller Wheel, Brake & Supply Co.
NEWARK—Automotive Safety Inc.
NEW HAVEN—Connecticut Wheel & Rim Co.
NEW ORLEANS—Southern Wheel & Rim Co.
NEW YORK—Wheels, Incorporated
OKLAHOMA CITY—Southwest Wheel, Inc.
OMAHA—Morgan Wheel & Equipment Co., Inc.
PEORIA—Peoria Wheel & Rim Co.
PHILADELPHIA—Thomas Wheel & Rim Company
PITTSBURGH—Wheel & Rim Sales Co.
PORTLAND—Six Rubbleee, Inc.
PROVIDENCE—New England Wheel & Rim Company
RALEIGH—Carolina Rim & Wheel Co.
RICHMOND—Dixie Wheel Co.
ROCHESTER—Frey, the Wheelman, Inc.
SALT LAKE CITY—Henderson Rim & Wheel Service
SAN ANTONIO—Southwest Wheel, Inc.
SAN FRANCISCO—Wheel Industries, Inc.
SEATTLE—Six Rubbleee, Inc.
SOUTH BEND—Wire & Disc Wheel Sales & Service
SPOKANE—Bearing & Rim Supply Co.
SPRINGFIELD, ILL.—Illinois Wheel & Rim Co.
SPRINGFIELD, MO.—Barbein, Young & Co.
ST. LOUIS—Barbein, Young & Co.
SYRACUSE—Calhoun Wheel & Rim Service, Inc.
TACOMA—Six Rubbleee, Inc.
TOLEDO—Wheel & Rim Sales Co.
WICHITA—Barbein, Young & Co.

EXPORT
CLEVELAND—C. O. Brandes, Inc.

CANADA
CALGARY—Fisk Tire Service Ltd.
EDMONTON—Alberta Wheel Distributors, Ltd.
MONTREAL—General Auto Equipment Ltd.
TORONTO—Wheel & Rim Co. of Canada, Ltd.
VANCOUVER—Wheels & Equipment, Ltd.
WINNIPEG—Ft. Garry Tire Service Ltd.

In April 1949, we ran this ad showing how one bus company increased tire mileage 40 per cent, by changing over to Budd Wheels with wide base rims.

It Paid To Read This Ad

● Eldo Miller of Wheel Industries Inc., Budd wheel distributor in Los Angeles, writes: "The Valley Transit Lines, operating a fleet of buses in El Monte, were having considerable tire trouble. Front tires were cupping so badly they had to be changed after only 10,000 miles of service. The cost was something to think about.

"Finally Mr. Wilson, shop superintendent of Valley Transit, called Wheel Industries into the picture. He said he had read an advertisement in one of the magazines about Budd Wheels and wide base rims. He wanted more information.

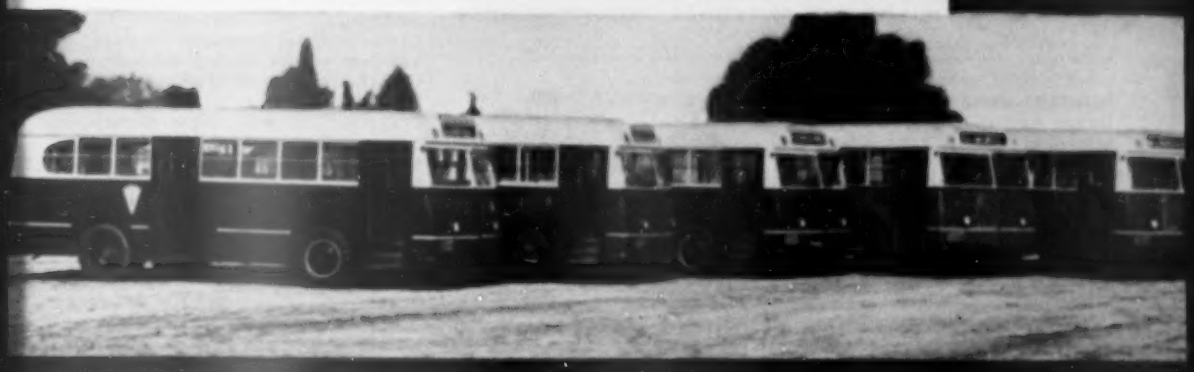
"After studying the problem," Mr Miller goes on, "we recommended Budd wheels on 20 x 6.50 rims. Mr. Wilson placed an order for Budd wheels to change over three buses. (The balance of the fleet was changed over one month later.)

"The record shows a mileage average of over 20,000 miles per tire to date, and there is every reason to expect 30,000 miles on these front tires before they will have to come off for a recap.

" 'Quite an increase in tire life,' says Mr. Wilson, and I quote him, 'the increase in tire mileage has more than paid for the wheels'."

Another example of how Budd wheel distributors can help lick many of the tire-wheel problems confronting fleet operators. If you have a tire problem, why not call on the Budd distributor near you? He is listed in the adjoining column.

The Budd Company, Detroit 14.



LIGHT . TOUGH . . STRONG . . .

FORGED FROM SELECTED ALLOY STEEL

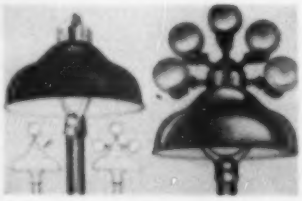
Williams "Superrenches" provide great strength with minimum bulk and weight. Drop-forged from selected alloy steel and heat-treated, they are available in a wide range of sizes and many patterns. Chrome-plated over nickel with highly polished heads. Write for Williams Catalog A-50.

J. H. WILLIAMS & CO., AUTOMOTIVE DIVISION, BUFFALO 7, N. Y.

lease the wrench at the desired torque setting. The operator may also watch a pointer advance along an easy-to-read dial and see when the proper torque is reached.

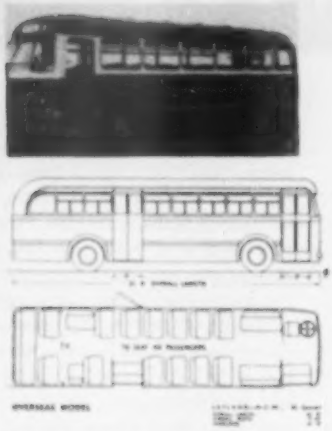
The reflex method permits speedy factory production, inspection, laboratory tests and repairs to cars, trucks, tractors, etc.

Six wrenches have capacities of 25, 50, 100, 150, 200 and 300-foot-pounds. The other six have capacity limits of 300, 600, 1200, 1800, 2400 and 3600 inch-pounds.



Column Light

Where uniformly high lighting intensities are advisable or necessary over a wide ground area a new weatherproof column light has just been developed by **Stone Manufacturing Company, Elizabeth, N. J.,** for use in gasoline stations, parking places, playgrounds, parkways and other installations. The new area light has a heavy steel porcelain-enameled reflector, 20½ inches in diameter, with a deep overhanging skirt to cut glare to a minimum. All wiring is fully enclosed inside a double-yoke hollow-arm construction that supports a built-in weatherproof cast aluminum splice box to which supplementary spots or floods can be added at any time.



Leyland Bus

Full details have been released of a new range of British single-deck buses. The buses are of integral construction.

Leyland Motors Ltd. and **Metropolitan-Cammell-Weymann Motor Bodies Ltd.** joined forces in October, 1948, to collaborate in the research necessary for developing, producing, and marketing the new buses which are known as the Leyland/M.C.W. "Olympic" models. Now these vehicles are in production and both companies will be jointly responsible for selling and servicing them.

The first fifty export models off the line will be shipped to Uruguay, where they will be operated in the city of Montevideo by A.M.D.E.T. (Administracion Municipal de Transportes Colectivos). These buses will be 40-seaters with left-hand driving controls.

Comprising four models, the range includes three specifically designed for export. These are of the two-door transit-type machines suitable for one-man operation. The model for the home market has a single entrance forward of the front wheels.

Synclinal Filter

FILTERS are now available for the wide variety of liquid line installations, according to **Marvel Engineering Co., 625 West Jackson Blvd., Chicago 6, Ill.** The firm has developed a housing that allows their unit to be inserted into any pipe carrying non-corrosive liquids.

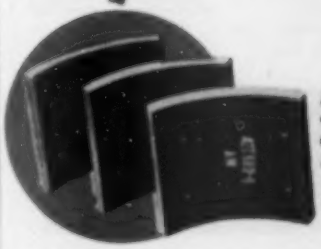
The Marvel Synclinal liquid line filter operates with equal efficiency in any position up, down or at any angle, the manufacturer claims, and thus can be fitted to any equipment according to available space. When cleaning is required, by removing one hand nut the entire filter may be disassembled. After cleaning the insert it may be assembled in a few minutes, in neither case are the pipe fittings disturbed. Except for gaskets, all parts are made of metal.

The Marvel Liquid Line Filter can be furnished with a wide variety of wire mesh ranging from a coarse 30 to a fine 200. Capacity sizes are 5, 8, 10, 20, 30 and 50 g.p.m. Greater capacities may be obtained by multiple installations.

Among other applications, it may be used for diesels, lathes, milling machines and grinders.

"Just What You'd Expect"

You'd expect Thermoid Heavy Duty Brake Blocks to stand up under high operating temperatures—and have uniform friction combined with exceptionally long life—wouldn't you? Certainly—because Thermoid is known everywhere for leadership in efficient, economical brake maintenance. Thermoid Heavy Duty Brake Blocks are the result of extensive engineering developments and exhaustive field tests. They meet the most rigid state stopping-distance laws. They operate efficiently in wet or slushy conditions. They will not score or wear drums and they provide maximum safe stopping at minimum cost per mile. You *expect* the best—you *get* the best—when you specify *Thermoid*.



Thermoid

Brake Linings • Clutch Facings • Fan Belts • Radiator Hose • Hydraulic Brake Parts and Fluid • Car Mats • Thermoid Precision Process Equipment.

Thermoid Company, Trenton, N. J.

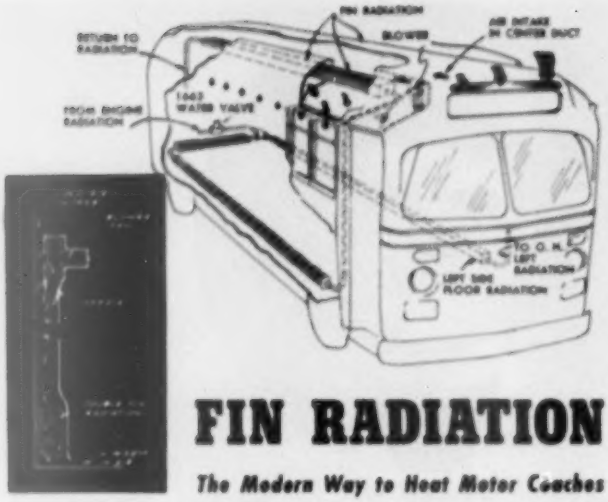
Gasoline Hose

DEVELOPMENT of a soft, crush-proof gasoline hose for use on curb pumps was announced by **United States Rubber Company, Rockefeller Center, N. Y. 20, N. Y.**

The new hose is lighter, more flexible and easier to handle than helically woven wire hose normally used on curb pumping units.

It is constructed of an oil-resistant synthetic rubber tube, two braided plies of high strength rayon cord with a built-in static wire and a sun and age-resisting neoprene cover.

The hose is being marketed in sizes of ¾ inch and 1 inch inner diameter and in standard lengths. It is available with either replaceable compression spring fittings or the newly-developed non-replaceable couplings.



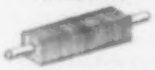
FIN RADIATION

The Modern Way to Heat Motor Coaches

Vapor's experience as the largest builders of transportation heating systems, guarantees positive means of distributing heat and tempered fresh air ventilation, throughout the coach. Fin radiation permits a number of arrangements, to meet any specifications suited to your vehicles. Installation is simple as fins are available in four models in any desired length.

ROUND FIN

MANG-A-FIN


RECTANGULAR FIN

VERTICAL 2 PIPE FIN

LOW COST: B. T. U. output considered, is equal to lowest cost unit heaters.

MAINTENANCE: Fins cannot loosen. No clogging. No freezing. No periodic cleaning.

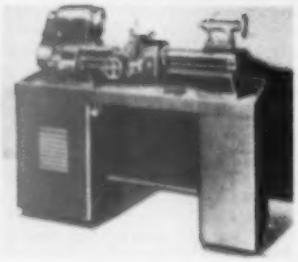
LONG LIFE: Heavy aluminum fins, copper pipe, no soldering.

TEMPERATURE CONTROL: Fan operation or water valve control.

RADOR LECTRONIC MODULATES

*T.M. REGISTERED

VAPOR HEATING CORPORATION
80 EAST JACKSON BLVD., CHICAGO 4, ILLINOIS
New York • St. Paul • Cleveland • St. Louis • Denver • Washington • Philadelphia
San Francisco • Portland • Jacksonville, Florida • Houston, Texas • Montreal



Logan Lathe

A NEW LATHE already in production, is announced by **Logan Engineering Company, 4901 West Lawrence Avenue, Chicago 30, Illinois.** With 1" collet capacity, 11" swing, 1⅛" spindle hole, and center distances of 24" or 36", the new lathe had adequate capacity for industrial work as well as for maintenance shops, tool rooms, and school shops, states the manufacturer. The ball bearing mounted spindle permits speeds of 45 to 1500 rpms without bearing adjustment. Typical tolerances are bed ways precision ground to within .0005" of absolute lineal accuracy, and less than .0005" total run-out of the spindle 12" from the front bearing. The lathe is mounted on a pedestal base with the underneath drive completely enclosed. The new lathe is available in two models which are identical in all respects except center distances: No. 955, with 24" between centers and No. 957, with a center distance of 36".

Heater

HOT WATER HEATER, developed by **Vapor Heating Corp.,** and **Tropic Aire, Inc., Chicago, Ill.,** will keep ten buses in a parking lot warm in the winter time. The unit burns atomized fuel oil, heating water which is circulated through the bus motors and heaters, it is completely automatic after once started and the buses have been hooked on. This is a new method of protecting buses in cold weather without keeping the bus motors running. Two additional units, designed for five, and twenty buses, have also been developed.

Spark Plug Tester

A NEW SPARK PLUG TESTER designed to cut testing time is announced by **Fleetcraft, Inc., 111 West Monroe St., Chicago 1, Ill.**

OK

INDIANAPOLIS STAMPS "OK" ON MARMON-HERRINGTON TROLLEY COACHES

JAMES TRETTON, Jr.
Vice-President and General Manager
Indianapolis Railways

"Indianapolis Railways has been using trolley coaches—of almost every size and make—since 1932. So in 1945, when Marmon-Herrington announced their entrance into the trolley coach field, we knew enough about this type of transit vehicle to investigate the Marmon-Herrington product with a critical eye. And we liked what we saw. A year later, when Marmon-Herrington made their first delivery—fifteen 44-passenger trolley coaches—the buyer was Indianapolis Railways!"

"Today, we are using a total of forty 44-passenger and ten 48-passenger M-H trolley coaches. Indianapolis riders are sold on them because they're clean and odorless . . . well air-conditioned . . . and *comfortable*. Our operators are sold on them because they're easy to handle, lessen fatigue, and provide excellent visibility. *We're* sold on M-H trolley coaches because they're *economical to operate* . . . their light-weight, sturdy construction cuts power costs, and holds repair and maintenance expenses to the minimum."

● Mr. Tretton's statement is typical of the reports Marmon-Herrington is receiving from transit companies all over the nation. Each statement adds concrete proof that when you order Marmon-Herrington trolley coaches, the potentialities of *reduced operation costs—safer and more efficient driving*—plus *more riders attracted*—are what your transit line may *need* for that long-awaited "shot in the arm."

But why not check the many features of M-H trolley coaches yourself? Call, write, or wire Marmon-Herrington *today*—plan on *seeing* these great vehicles in action. You'll find out—firsthand—just what M-H engineering can do for *your* transit company.

PUT YOUR PASSENGERS IN THIS PICTURE

For the comfort of your drivers and passengers, every windshield in your fleet should be *E-Z-Eye** Hi-Test Safety *Plate*—Libbey-Owens-Ford glare reducing glass.

E-Z-EYE has five big advantages for bus operators—five factors that increase operating efficiency, reduce accident hazards, increase the number of satisfied passengers.

E-Z-EYE substantially reduces the annoyance of sky glare. It lessens eyestrain and adds to the safety and comfort of drivers.

E-Z-EYE lets the driver see out clearly—transmits even more light than is required by the American Standards Association.

E-Z-EYE, used all around, keeps the bus interior cooler. It shuts out a high percentage of the sun's infrared rays—the radiant heat that readily passes through ordinary safety glass.

E-Z-EYE has a restful, blue-green color that is inherent in the glass. Light, weather and the passage of time have practically no effect on this color.

E-Z-EYE is made of special-formula PLATE glass—produced by Libbey-Owens-Ford—the finest you can get. It is ground and polished on both sides to minimize distortion and give clear vision for safe, efficient bus operation.

Ask your nearest Libbey-Owens-Ford Distributor or Safety Glass Dealer for the names of dealers in your vicinity who stock *E-Z-Eye* Hi-Test Safety *Plate*. You can get more facts and figures there—or write us direct.

*TM

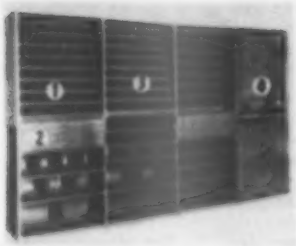
NO FINER GLASS THAN
LIBBEY · OWENS · FORD

E-Z-EYE
HI-TEST SAFETY
PLATE

Made Only by **LIBBEY · OWENS · FORD GLASS COMPANY**
345 Nicholas Building, Toledo, Ohio

Testing is fast, simple and accurate, according to the manufacturer. A new plug of the same type as those in the engine, is inserted into a fitting on the instrument panel and checked to operate at 100% efficiency. The distributor wire is removed from the plug to be tested and the tester lead attached. One control is set to compensate for the charge condition of the battery. Manipulation of a second control then indicates, in terms of "poor, fair and good," the efficiency of the plug under test as compared with 100% efficiency of the new plug in the panel. Thus, it is stated, only the plugs that require service or replacement need to be removed.

For bench testing, a second fitting on the instrument panel receives the plug under test and the comparison made against a new 100% efficient plug of the same type mounted on the panel.



Storage Rack

A COMPLETE storage rack for tool rooms and stock rooms, is now being marketed by **Lyon Metal Products, Incorporated, Aurora, Illinois.**

This tool rack contains some of Lyon's typical storage units:

Sloping Front Unit (1) provides 88 openings in 8 depth with shelf dividers adjustable every inch. For storage of small tools and supplies.

Drawer Case Unit (2). Each drawer has five dividers. Stores small tools and cutters supplies.

Sloping Shelf Unit (3) has 108 compartments on 8 shelves. For storing drills, reamers and taps.

Swinging panel unit (4) which allows almost 27 square feet of storage area — holes punched every inch—for milling cutters, gauges and templates.

Other storage units available include drill rod units. Pigeon hole units and waste bins for rags and waste.

FIRST

in figuring efficiency ...the Printing Calculator

If you want faster figuring, with a constant printed check on every factor, you can't beat the famous Remington Rand Printing Calculator—the only calculating machine that *figures* and *proves* at the same time.

That's why the Printing Calculator is first with businessmen and operators everywhere . . . they save time by eliminating reruns and needless checking . . . they get more figure production with the faster 10 key keyboard. And—anyone can learn to operate it in a brief practice session.

There's real economy in the Printing Calculator—you get super-quick adding and subtraction . . . automatic division and direct multiplication all with this one all-purpose figuring machine—plus proof printed on the tape. It's *first* . . . for payroll work, cost accounting, tax computations . . . for every office figuring job.

Finest

are our machines to aid business management—Printing Calculators, Electric and Manual Adding Machines, Electric, Standard, Noiseless and Portable Typewriters. For your writing and figuring needs we are not limited to any one system or machine—we make them all.

Remington Rand

Remington Rand, 315 Fourth Avenue, New York 10, New York
Business Machines and Supplies Division, Room 1381

☐ Please send me a free copy of "Facts about Office Figures"—the booklet that shows how to SAVE the *Printing Calculator* way.

Name_____ Title_____

Company_____

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For Custom Jeweled Beauty

BRING YOUR HARDWARE SPECIFICATIONS to ATTWOOD

Design your bus hardware to give the final accent of gleaming beauty to modern units . . . then look to Attwood for the execution of these designs. Attwood's more than fifty years experience assures satisfaction . . . with custom produced hardware . . . or you may choose from more than two thousand standard designs. Write for your free, illustrated copy of the New Attwood Automotive Hardware Catalog No. 25.

Among users of Attwood's custom service are: G.M. Truck & Coach — Flexible — Fitzjohn — Mack — J.G. Brill — Southern Coach & Body — Beck

ATTWOOD BRASS WORKS
GRAND RAPIDS 4 MICHIGAN

Write to 846 Front Ave., N.W., Grand Rapids 4, Michigan

You Can Have . . .

1. Cleaner Bus Bodies
2. Faster and Better Dismantled Parts Cleaning
3. Safer Cleaning Routines for Cooling Systems
4. Dependable Sludge Control

. . . and they will cost you less!

WRITE NOW for this free cleaning textbook and look up the answers:

- Pages 37-43
- Pages 17-29
- Pages 30-36
- Pages 11-16

The Truck and Bus Cleaning Manual covers every cleaning job you have to do!

MAGNUS CHEMICAL COMPANY, 39 South Ave., Garwood, N. J. In Canada—Magnus Chemicals, Ltd., 4040 Rue Masson, Montreal 36, Que. Service representatives in principal cities.

Magnus
CLEANERS • EQUIPMENT • METHODS

Highway Post Office

Interior view showing pouch racks, letter sorting table, letter sorting racks and paper sorting table. Also shows fresh air ducts, drinking fountain and water cooler, as well as interior lighting arrangement.

THREE NEW Highway Post Office coaches, manufactured by **C. D. Beck & Co., Inc., Sidney, Ohio,** have just been delivered to Arnold Fletcher, President of Sedalia-Marshall-Boonville Stage Lines, Inc., Ft. Des Moines, Iowa.

The coaches will handle all U. S. mail and are replacing several star routes and a train or so.

The coaches are all built in accordance with U. S. government inspection and have been approved by them for purchase by any contract carrier who operates mail contracts.

Shielded Spark Plugs

A COMPLETE new line of shielded spark plugs has been developed by **Champion Spark Plug Company, Toledo, Ohio,** to supplement the conventional automotive and industrial type in all thread sizes except 10 mm.

The new shielded spark plug design permits the exact duplication of heat range and performance of the corresponding unshielded spark plug, the manufacturer states.

The chief advantage of the new product is found in its low fire hazard where explosive fumes may be present. Another feature

is the resistance to moisture in exposed installations. The plugs permit the complete elimination of high frequency interference provided the rest of the ignition system is also shielded.

Accidental shorting and flashover due to dirty or wet insulators also are eliminated with this design, it is said.

The shielding barrel insulator is the same ceramic as used in aircraft design. The use of regular core assemblies permits duplication in heat range of the corresponding unshielded type.

Standard cleaning and checking procedures can be used in servicing the shielded types, and ordinary installation techniques should be employed.

Floodlight

THE NEW TYPE VE-18 Open Floodlight, meeting NEMA Standard FL6-200, Type 6, Group C, is available from the **Westinghouse Electric Corporation, 306 Fourth Ave., Pittsburgh 30, Pa.** The unit is a 750-1,500 watt open type, all porcelain floodlight suitable for general area lighting, service stations, and other applications recommended under the new NEMA Standard floodlight layouts.

The VE-18 is of one-piece welded steel construction with porcelain enamel finish, gray outside and white inside, with average reflectivity of 82 percent or more. With a beam spread of approximately 135°, the unit provides higher efficiency where the greater lamp shielding of the type AF-16 is not required. Beam efficiency exceeds 70 percent, as compared to the 55 percent minimum required under the NEMA Standards.

A new bracket is available to extend the Westinghouse Swing-Over feature to all bayonet heel

Kester Solder

When the boys in the shop talk about solder, they talk about Kester Acid-Core Solder; the old reliable product now in a new package.

Easier to Use

Mechanics know that using Kester makes any soldering job easier. Kester contains more grade A newly mined Tin—40%—and only virgin lead, too. The fluxes are chemically and scientifically correct.

Faster

Kester is faster to use. Mechanics prefer it and are more satisfied when using it. The work is speeded up and output is increased.

Kester Solder Company
4201 Wrightwood Ave., Chicago 39
Newark, N. J. • Brantford, Canada

KESTER SOLDER

The Mechanics Standard since 1899

High Efficiency! Doors roll overhead, clear the entire opening.

Extra Space! All floor, wall, and ceiling space is always usable.

Convenience! Smooth, easy, upward action saves time and labor.

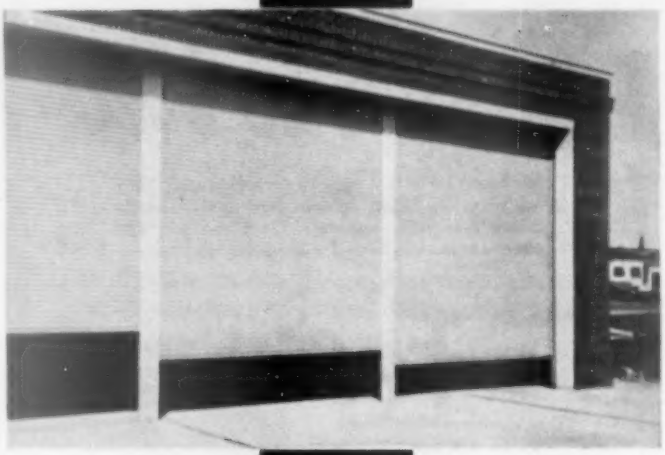
Do YOUR Doors Give You These KINNEAR Values ?

Safe from Damage. Open out of way, safe from wind or vehicles!

Extra Protection. All-metal curtain repels fire, theft, wind.

Extra Durability. Strong, resilient curtain takes more punishment.

Longer-Lasting! Many Doors in steady use 40 years or more.



Low-Cost Repairs. Slats individually replaced if damaged.

Any Size! Each door built to meet individual requirements.

Kinnear Rolling Doors are easily equipped with Kinnear Motor Operators for highest convenience and efficiency. Pushbutton controls can be provided at any number of convenient points — a feature that not only saves manpower but also reduces heating and air-conditioning costs by encouraging prompt door closure. Every door is specially fitted to the individual opening. Easily installed in new or old buildings. Write for details and estimate on your door requirements.

THE KINNEAR MANUFACTURING CO.

Factories:
1050-70 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and Agents in All Principal Cities

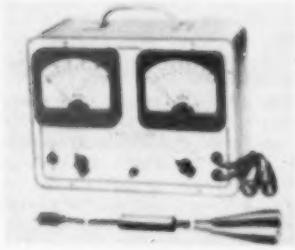
Saving Ways in Doorways
KINNEAR
ROLLING DOORS

construction floodlights. This new bracket replaces the current No. 1220553 Swing-Over bracket for the VRC-18 and VRC-20, and in addition will fit all Westinghouse bayonet heel floodlights. The hood of the bracket is made of corrosion-resistant cast aluminum.

Oil Level Gage

OIL-SPY, a new oil level measuring gage for the dash board, has just been announced by the **Parkwood Manufacturing Co.**, and is being marketed nationally by **Frank A. Nealon Associates, 20 North Wacker Drive, Chicago.** The newly designed instrument consists of an instrument panel indicator in plain view of the driver at all times. An amber light appears when the level drops 1 qt. below rated capacity. A red light warns when level is 2 qts. low.

Installation can be made in a few minutes. Models are available for bus, truck, and tractor crank cases as well as for automatic transmissions.



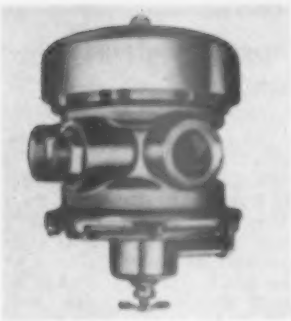
Electrical Tester

AN IMPROVED King System V-A-R (volt-amp-resistance) Tester for 6, 12 and 24-volt internal combustion engine ignition systems and using only one pair of leads for all voltage and current regula-

tors is announced by **The Electric Heat Control Company, 9123 Inman Ave., Cleveland 5, Ohio.**

The tester is operated as an independent unit and is also included with the King System Deluxe Engine Tester. Featuring only three controls instead of the conventional four to six control setup, the tester has meter scales to accommodate any generator up to 20 amperes capacity and enables voltage and current regulator testing to be accomplished without breaking the regulator seal.

The manufacturer states that a resistance load substituted for the battery eliminates variables in the charging circuit and permits accurate regulator testing regardless of battery condition. Also, internal load resistors combined with only two selector switches simplify testing procedures and speed up training of shop personnel.



Vacuum Relay Valve

MAXIMUM BRAKING is obtained in one-third the usual time, it is claimed, with the new Vacuum Emergency Relay Valve recently introduced by **The Midland Steel Products Company of Cleveland** and **Detroit.** Tests of the new unit have demonstrated greatly increased braking efficiency, especially on high speed stops and on steep down grades.

Incorporated is an open type check valve, eliminating the previously required separate, remote mounted check valve. Also built in, is a moisture trap with drain cock, and "tank" valve. Due to its design, this new unit is 25% lighter than the total of the parts it replaces.

Rate of brake application has been stepped up because the new built in tank check valve automatically closes off the manifold connection to the reservoir when the vacuum in the brake chamber balances the vacuum in the reserve tank. This permits the motor to build up maximum vacuum in the vacuum chambers without further evacuating the tank until the brakes are released.

NOW-more than ever before-

-take full advantage of its time and money saving benefits

Change and overhaul motors, change tires, replace springs, repaint, lubricate . . . it's all in a day's work. So why not do these jobs better, quicker and at lower costs with Air Power . . . using compressors and tools, products of Ingersoll-Rand.

For the source of your Air Power be sure and look into the outstanding 15 horsepower I-R Type 30 Compressor . . . the largest size of a line of smooth running, dependable units, ranging from ½ to 15 hp. Here is the compressor, designed and proven for rugged service, which gives more air at lower cost.

Call in your local I-R distributor or get in touch with your nearest I-R branch office to help you speed up your service and reduce your maintenance costs with Air Power.

The 15TE Compressor

Ingersoll-Rand

11 Broadway, New York 4, N. Y.

307-3

Extinguisher Labels

TO HELP IDENTIFY and locate the proper fire extinguisher in a hurry, the **Meyercord Co., 5323 W. Lake St., Chicago 44, Ill.,** reports the development of three new decal sets for positive selection of three types of extinguishers for fires of: 1) wood, paper, rubbish; 2) electric, gas, chemical; and 3) of any origin except electrical.

A large decal (8"x9") is supplied for application to the wall above the fire extinguisher, and a smaller one (1¾"x2") for the extinguisher itself. The new decals identify in three ways: by color code, by design, and by printed instructions naming proper use.

Moto-Gard

REDUCE MAINTENANCE COSTS

Use Moto-Gard to Reduce Maintenance Costs and Insure Longer Life for Your Motors. It is bound to Make Your Equipment Safer and More Profitable. Moto-Gard automatically stops the Motor ahead of any damage when either the cooling or lubricating system fails.

REASONABLY PRICED . . . EASILY INSTALLED
Full Information on Request

"Don't Buy Motors — Buy Motor-Gard"

THE MOTO-GARD COMPANY
BOX 2425
Raleigh, North Carolina

A NEW HALLOWELL TIME-SAVER

The sturdy, easy-rolling *CARRY-TOOL* is the handiest, time-saving "carrier" in the shop.

Made of heavy-gauge steel, the *CARRY-TOOL* has large drawers that hold a full complement of tools. *Ball-bearing* rollers make drawers slide *easily*, loaded or empty. Padlock attachments protect contents.

Use the *CARRY-TOOL* on assembly lines, at machines, in the tool room. "*CARRY-TOOL* takes the tools to the job—therefore, a *step-saver*."

Full details in Bulletin 715.

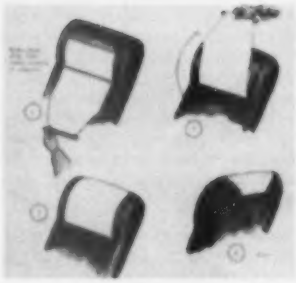
See us at Space 139, A.S.T.E. Exposition, April 10-14, Convention Hall, Phila., Pa.

SHOP EQUIPMENT HALLOWELL OF STEEL

SPS STANDARD PRESSED STEEL CO.
JENKINTOWN 4, PENNSYLVANIA

The decal selection sign for fires of wood, paper, or rubbish origin has black and yellow diagonal bars. For electric, chemical or gas fires, the identifying design has red and white horizontal bars.

The third decal was developed to identify foam type fire extinguishers, which are suitable for any but electrical fires. This pattern employs red and white horizontal bars cut diagonally by a combination yellow and black stripe.



Paper Headrest Towel

A DISPOSABLE paper headrest towel for use on intercity buses is being manufactured by **Struble & Moffit Company, 5311 Westminster Avenue, Philadelphia, Pa.**

This towel is unique in that it can be used for as long as eight days and on trips up to 2,500 miles and is still cheaper than the cost of laundering a cloth towel, it is stated. It also will remain in place in spite of open windows and movements of the passenger.

Stop Light

AN ARMORED STOP LIGHT, which flashes its warning 60 times a second when brake pressure is applied, manufactured by **Trippe Mfg. Co., 2608 W. 16th St., Chicago 8, Ill.** Made of heavy steel plate enclosing a reflecting lens that warns in day-time as well as night-time. By means of a dash switch this heavy duty light can

be kept flashing when vehicle is stopped, averting accidents that happen when the driver is putting out flares or has been forced to stop or slow up momentarily for other reasons. The unit is 12" long by 3" high and ruggedly built for the severest kind of service, the manufacturer claims.

Portable Lubricator

THE "Thrifty-Fifty," a portable lubricator with a full-size pump to provide fast and thorough grease jobs, is announced by the **Aro Equipment Corp., Bryan, Ohio.**

It is particularly suited for those who require "spare" units for that extra "off-the-lift" grease job, the manufacturer states.

It is powered by a double-acting type pump with 36:1 piston ratio delivering up to 6000 lb. grease pressure. An automatic oiler keeps pump lubricated. Swivel on control handle allows 360° rotation horizontally and vertically. Control nozzle is "dual action" type, giving operator choice of controlled shot or continuous flow. Cabinet holds original drums of up to 50 lb. capacity, or 60 lb. bulk lubricant. The lubricator is mounted on a four-caster dolly of heavy-gauge steel. A six-foot heavy duty grease hose is furnished, with an Aro Speed Coupler for quick connection to air line.

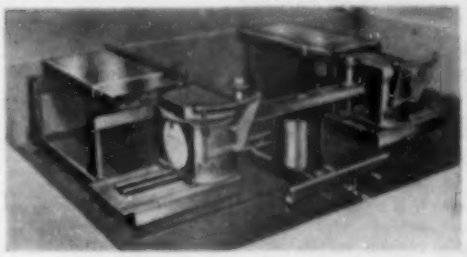
Aluminum Paint

A CHEMICAL and heat resistant aluminum paint, named BiChem, that dries to handle in 12 to 18 minutes (air drying) is an-

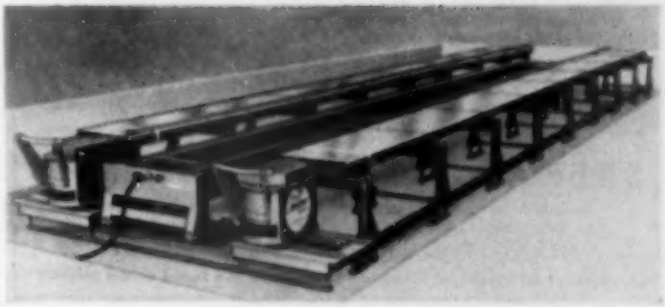
Save Tire Wear and Major Repair with

Bee-Line Aligners

Bee-Line Balancing, Aligning and Frame-Straightening Equipment is built with many time and labor-saving features to reduce the cost of Bus correction.



The compact, One-Section "Advanced Aligner" with Air-jack for front or rear-end Aligning. Standard Sections and an Air-lift Frame Press may be added later to convert this machine to a Frame Straightener.



The Advanced Aligner 8-AA-25-P

Complete Front-end and Frame Machine with Tools, Gauges and Air-lift Frame Press for Truck and Bus correction.

When you think of ★ STRAIGHTENING ★ BALANCING or ★ ALIGNING *think of* **Bee-Line**

Bee-Line co. DAVENPORT, IOWA U.S.A. *Write Today for catalog and price list*

America's Finest Automotive Alignment Equipment

REDUCE

COSTS

3

WAYS

RELINE BRAKES WITH S-T MODEL 45 UNIVERSAL HEAVY DUTY BRAKE SHOE GRINDER

Brake Lining Wears Longer; Gives Greater Safety; and Adds Hundreds Of Extra Miles To Tire Life

No brake job, regardless how good the brake lining or how expert the mechanic, can give maximum operating efficiency and safety if it is not done with fine precision equipment.

The S-T Model 45, shown above, is the finest equipment of its kind . . . and practical, too! It is simple and easy to operate and assures uniform overall contact between brake lining and brake drum. For instance, the adjustable contact button on the micrometer sets the grinder to within .001" *every time!* Note also, in the illustration above, the self-aligning "V-Blocks," which work equally well on either straight or tapered axles; or steering spindle.

Many operators also report that they have been able to eliminate annoying brake squeaks with the S-T Model 45 too. For the BEST brake jobs, use S-T precision Brake Service Equipment. See your nearest jobber for complete information, or write direct to:

SHEPARD-THOMASON COMPANY

Manufacturer of the Finest Line of Brake Lining Equipment in the World . . . Used by Many Leading Research Laboratories

2023 West Gage Avenue, Los Angeles 44, California

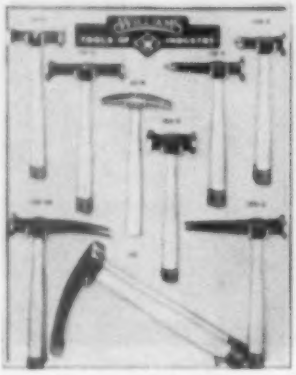
Every Piece of S-T Equipment Is Thoroughly Inspected and Tested Before Delivery

nounced by the **Bisonite Company, Inc., 128 Lakeview Avenue, Buffalo 1, New York.** For production lines, no waiting period is required before baking at 300° F. for only six minutes to obtain complete drying. Blending of aluminum flake sizes produces an unusually brilliant surface with superior light reflection factor, states the manufacturer. This coating will not "stain" or "yellow" from continued exposure at high temperatures and gives good resistance to chemical fumes. Samples available.

Plastic Coatings

READY-MIXED, abrasion and corrosion resistant Vinyl plastic coatings, under the trade name of "CALVINAC" are announced by **James Lithgow Company, Inc., Los Angeles 22, California.** According to the maker the coatings can be applied to wood or metal by brush, spray or dipping, are air drying, and non-toxic, highly dielectric; resistant to alcohol, acids, salts, alkali, and fumes and are particularly effective in protecting petroleum equipment. "CALVINAC" Primer is an outstanding inhibitor, the company states, with unusual merit as an adhering agent on magnesium, aluminum, and other metals. A selection of standard colors is offered.

"CALVINAC" coatings are proof against cleaning mixtures, sterilization by steam, and will not oxidize, it is said.



Hammer Line

NINE STYLES of body and fender hammers has been announced by **J. H. Williams & Co., 400 Vulcan Street, Buffalo 7, N. Y.** Hammers have heads of selected steel, drop-forged and heat-treated. All are carefully balanced and are fitted with selected hickory handles finished with clear lacquer.

Two Dinging Hammers provide for light or heavy work and allow a selection of long or short heads.

The heavy Fender Bumper is designed to clear obstructions when bumping out dents from the inside. A smaller heavy duty Bumping Hammer is adapted to body and fender straightening.

Three Finishing Hammers each have pointed ends for driving up small dents when filing. Curved pointed end of No. 156 GB is bent to arc of a normal swing.

A Utility Hammer has a short pick with bullet shaped head which is useful for driving up small dents.

A Magnetic Trimmers Hammer has full polished head, drop-forged from steel selected to retain magnetism. Arc of head is designed for use in trimming and upholstery.

(*Continued on page* 175)

Nation-wide Fleet Experience Shows You How To

CUT "DOWN TIME"

with Transportation's Finest Piston Rings!

FLEET #274

YEAR PASSES, STILL NO ENGINE OVERHAULS FOR DELIVERY FLEET!

"For the last year, we have used Koppers Piston Rings and the results are exceptional. They have shown the best results we have ever had with any ring installation. The increase in engine life is such that we have not yet pulled down an engine in which Koppers Piston Rings have been installed. We see no indication that this will be necessary in the near future.

We formerly were worried with top ring sticking, but with Koppers Piston Rings this has been eliminated. Oil consumption is very good and fuel mileage has improved appreciably. All engines show more power, due to better blow-by control and reduction of friction caused by the perfectly mated surfaces on the rings and cylinder walls."

FOOD DISTRIBUTING COMPANY, operating 220 trucks and cars in door-to-door delivery

KOPPERS K-SPUN

STOPS PISTON RING BREAKAGE

because:

1. It is twice as strong as conventional piston ring materials
2. It has 50% more spring
3. It has four times greater resistance to combustion shock
4. It has much greater resistance to wear

KOPPERS POROUS CHROME*

REDUCES CYLINDER WEAR

because:

1. It seats faster. The porosity of the chrome causes almost instantaneous seating to make a perfect seal that eliminates blow-by.
2. Chrome finish resists the penetration of abrasive material (which normally wears cylinders by entering the engine and embedding itself in the surface of ordinary rings.) Result: Porous chrome reduces cylinder and ring wear ½ to ¼ of normal.

GREATLY REDUCES OIL COSTS by maintaining minimum oil consumption for longer period of time

INCREASES GASOLINE MILEAGE by reducing friction, adding power, which maintains economy longer

*VAN DER HOOST PROCESS

SEE YOUR KOPPERS AMERICAN HAMMERED JOBBER for these amazing Piston Rings—equally effective for racing or reboring jobs. KOPPERS COMPANY, INC., Piston Ring Dept., Baltimore 3, Maryland.

AMERICAN HAMMERED KOPPERS K-Spun POROUS CHROME PISTON RINGS

MACK offers NATION Diesel Maintenance

ALBANY, N. Y. Over 300 intent listeners hear the history of the diesel engine and its economics.

BOSTON, MASS. More than 1,200 students concentrate on the opening night instructions.

CHICAGO ILL. Upwards of 1,500 enrollees take in the first night's proceedings.

NEW YORK, N. Y. 3,500 expectant trainees join Manhattan Center every Monday night.

MACK MANUFACTURING CORPORATION • **Bus Division** • EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

-WIDE TRAINING

● Today's swing to diesel power has created a rising demand everywhere for trained diesel mechanics. To help meet this demand, Mack—pioneer developer of automotive diesels—has inaugurated a series of nationwide, free diesel training schools. These courses are designed to greatly increase the supply of trained diesel service men, and to be informative to operators as well.

Whether or not you now operate diesels, it is important to you to know the latest answers on diesel power and the convincing savings diesels can give you. And it is important to have your maintenance men fully "diesel-wise" before you do switch to diesels.

MACK CORDIALLY INVITES YOU AND YOUR MEN TO ATTEND.

The Mack Diesel training course provides ten two-hour night sessions—once a week for ten weeks. A certificate will be awarded to men satisfactorily completing the course. There is NO COST OR OBLIGATION of any kind attached.

Attended by over 5,000 men, courses are now in progress in Albany, Boston, Chicago, New York, Philadelphia, Charlotte, Milwaukee and Minneapolis-St. Paul. Others will open soon. Watch your local papers, or contact your nearest Mack branch or distributor for the opening date and full details of the school that will open nearest to you. Be sure to get in your applications early—and remember, there is no charge or obligation whatever.

Here are typical subjects that will be covered in each free Mack Diesel Training School:

- **History and Economics of Diesel Engines**
- **Diesel Fuel System**
- **Diesel Electrical System**
- **Lubrication and Lube Oils (Filtration)**
- **Metering, Governing and Stopping**
- **Trouble Shooting—Trouble Analysis**
- **Unit Overhaul and Maintenance Practices**

"Taking the Mystery Out of the Diesel". Experienced Mack lecturers put the diesel story in clear, informative terms.

"INFORMATION COMING UP" as one of the panel of Mack diesel experts replies to a question in the question-and-answer period.

Be Profit-Wise

Modernize with

Mack

...outlasts them all!

Factory branches and distributors for service and parts in all principal cities. In Canada: Mack Trucks of Canada, Ltd.

DIESEL AND GASOLINE TRACTOR BODIES—ALSO CONVENTIONAL AND SCHOOL BUS CHASSIS.

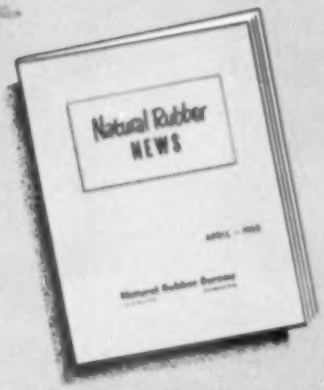
FACTS ABOUT RUBBER

Natural rubber is an important subject these days. It is the key to the economy of Southeast Asia, it is the top dollar-earner for the whole sterling area, and it is one of America's most important imports. The Natural Rubber Bureau is at your service if you want information on this subject. Some of its current booklets are listed below.

FACT-BOOK: A picture story of how rubber is grown, plus facts and figures on its production and consumption. Title: "Natural Rubber — And YOU."

RUBBER ROADS: The story of a great potential new use for natural rubber — as a longer wearing top surface for highways. Title: "S-t-r-e-t-c-h-i-n-g Highway Dollars — with Rubber Roads."

CUSHIONING: Facts about latex foam — America's No. 1 Cushioning Material — including how to re-upholster furniture. Title: "Convert to Comfort — with LATEX FOAM."



MONTHLY NEWSLETTER: A monthly summary of latest developments in rubber, and industry statistics. Helpful for editors and others who wish to keep abreast of news about rubber. Title: "Natural Rubber NEWS."

WRITE FOR FREE COPIES

Natural Rubber Bureau

Dept. D2, 1631 K Street, N. W., Washington 6, D. C.

WHAT'S NEW

(*Continued from page* 170)

Fire Extinguisher

TWO-AND-A-HALF gallon foam, soda-acid and cartridge operated fire extinguishers of seamless draw shell construction are now being offered at the same price as the former standard riveted shell extinguishers, according to the **Pyrene Manufacturing Company, 560 Belmont Ave., Newark 8, N. J.** These seamless extinguishers all pass a 500 pound hydrostatic pressure test as contrasted with the 350 pound test for riveted units. The extinguishers also have tough transparent plastic nozzles which are highly resistant to damage or distortion and make for quick visual inspection to determine whether nozzle openings are clean and unobstructed.

The cartridge operated extinguishers now having this new construction are of both the plain water and the anti-freeze solution types. All of the improved extinguishers are inspected and labeled by Underwriters' Laboratories and approved by Factory Mutual Engineering Division.

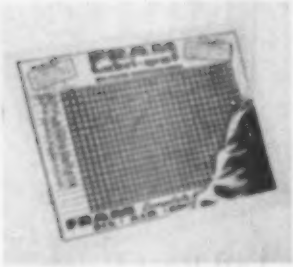
PUT

Zenith Instruction Program into YOUR PROFIT PLANS!

A highly trained carburetor expert will get your vehicles on the road with a minimum of lost time—thus cutting down on the profit loss of costly schedule interruptions. The purpose of the Zenith® Instruction Program is to acquaint your men with the techniques of faster, better work in heavy-duty carburetor repair. Conducted by factory experts, this highly successful course is short and thorough—and, combined with the easy-to-work-from Package Repair Kit makes carburetor service quick and profitable. Contact your Zenith distributor for details, or write the factory direct.

ZENITH CARBURETOR
696 HART AVENUE • DETROIT 14, MICHIGAN

DIVISION OF BENDIX AVIATION CORPORATION



Lubri-Graf

DESIGNED TO provide a simple and efficient check of oil and engine conditions, the new Fram Lubri-Graf, introduced by **Fram Corporation, Providence, Rhode Island,** is effectively solving an operating problem for fleet owners.

The Fram Lubri-Graf gives visual proof of the operating efficiency of engines and shows which ones are contaminating oil and eating up cartridges too fast. Lined up with each vehicle's number on the chart, thirty-one indicator spots are provided for daily check of the monthly operation. The dipstick is touched to the proper indicator spot. If oil obscures the color dot, it's time to change the cartridge.

Fleet operators are finding that this simple device, which forewarns before trouble develops and points out vehicles due for overhauls, is effecting substantial economies in fleet operation, states the manufacturer.

Water Injector

A VACUUM controlled water injector for installation between the carburetor and the intake manifold is being made by the **Hydro-Power Mfg. Co., 1854 Lawrence St., Denver, Colo.** The purpose is to mix water vapor with the combustible vapor to reduce the octane requirement.

THE PROFIT BUILDING BUS

CHEVROLET 12 PASSENGER SEDAN COACH FOR '50

A dependable—rich looking—comfortable coach for scores of regular and special services that will make you a profit on practically every trip. Chevrolet throughout: it is economical to run and service. Its exceptionally hefty design and construction will give you thousands of profitable trips on short run schedules to suburbs, adjacent towns, airports, and innumerable types of charter service. We always have a bus on hand for immediate delivery. Call, write or wire us direct for complete information and prices.

QUEEN CITY
Chevrolet Co.

312 EAST SIXTH ST. CINCINNATI, OHIO

9,000,000 SQUARE FEET USED BY BUS MANUFACTURER!

PABCO MASTIPAVE

AMERICA'S No. 1 LOW-COST LONG-LIFE FLOOR COVERING

"Our company has been using approximately 600,000 square feet of Pabco Mastipave floor covering annually since 1934," says Thomas M. Schumaker, Sales Dept., The Wayne Works, Richmond, Indiana, builders of all-steel motor coach bodies.

TAKES THE POUNDING OF MILLIONS OF FEET

The Wayne Works—experts on public carrier construction since 1868—have found that Pabco Mastipave defies, through the years, the scuffing of millions of pairs of feet. For 25 years, the Nation's blue chip transportation companies have used Pabco Mastipave—both regular and non-slip Grip-Tread types—in public carriers, depots, shops and warehouses. Grip-Tread Mastipave is sold in roll goods only—regular Mastipave is available in roll goods and tiles.

SEND NOW FOR THE FULL STORY OF MASTIPAVE!

THE PARAFFINE COMPANIES, INC.
New York 16 • Chicago 54 • San Francisco 19
(Mail to Dept. C, nearest office)

Gentlemen: Without cost or obligation to me, please send folder, "Every Building Needs Pabco Mastipave."

NAME _____

ADDRESS _____

CITY _____ STATE _____

Industrial Trucks

TWELVE NEW SIT-DOWN type Skylift electric industrial trucks have been announced by the **Automatic Transportation Company, 149 West 87th Street, Chicago.** Among advances is an increase of lifting height to 132 inches in all but the Shipper models. Other changes are designed for reduced maintenance cost, superior performance, and durability, the manufacturer states. Inset shows newly designed seat with foam rubber padding, larger and more comfortable than ever before. Maintenance is simplified by location of all electrical controls together on the dashboard, where they can be reached by simply removing one covering.

Anti-Rust Paint

CLEAR ANTI-RUST PAINT, known as RUSTREM (Rust Remedy) is added to the line of maintenance coatings, announced by **Speco,**

Inc., Cleveland.

A new paint, known as RUSTREM CLEAR, can be brushed or sprayed directly over rust without wire brushing or scraping, is announced by Speco, Inc., 7308 Associate Ave., Cleveland, Ohio. It is reputed to possess all of the penetrating and sealing qualities of RUSTREM Black and RUSTREM Aluminum.

RUSTREM CLEAR can be painted over with any good quality paint (except lacquer). It will not bleed through painted surfaces. Consequently, it is ideal for use as a rust-proofing primer and undercoater. By applying RUSTREM CLEAR as a first coat, users can employ any desired finish color and at the same time secure maximum rust protection.

New Socket

A NEW SOCKET that eliminates the exasperation of dropping and losing nuts, plugs and bolts in removing or in starting them is announced by the **Herbrand Division, Bingham - Herbrand Corp., Fremont, Ohio.** The new HOLD-IT Socket is designed with two spring-tension pins in the socket wall to grasp and hold nut or plug.

At present the HOLD-IT Socket is available in ¾" and 11/16" 6-point sizes, with production on a wider selection scheduled.

Heavy-Duty Electric Door Operator

A DIRECT-GEAR DRIVE electric door operator called the Y-M CHIEF equipped with automatic safety switch and designed for overhead and single sliding or double parting doors is announced by **Yoder-**

New Booklet!

SHOWS YOU HOW TO SPEED REPAINT SCHEDULES— CUT COSTS— WITH HELPFUL TIPS ON MASKING!

Want to take the mess out of masking? You'll know how when you read page 5!

Oh that tape! Want a convenient way to keep it at your finger tips? See page 13!

and...

would you like to see a complete, portable masking department on wheels? You'll find it—and the answer to better masking—on page 10!

For an easy, time-saving tip on masking headlights—just turn to page 18!

Send for your FREE copy today!

Twenty-five pages of masking procedure, complete description of Permacel's new Portable Masker. Write Dept. 16A at address below.

Permacel-77

MASKING TAPE

INDUSTRIAL TAPE CORPORATION • NEW BRUNSWICK, N. J.

STOP
COSTLY SKID ACCIDENTS
with Penetred

AMAZING results in revolutionary SKID-CONTROL and Increased Tire Mileage are now available to every bus and truck operator, with **PENETRED.** Over 5,000 Tempered Steel Claws are firmly imbedded in every tire during the treading process . . . Claws that cut through ice and snow in winter, and slippery road film in summer, whenever power or brakes are applied . . . plus 25 to 100% increased tire mileage.

Get it TODAY free

Here is SKID-CONTROL you actually feel . . . Here is driving safety and increased mileage no other tire can offer, for year 'round driving. **PENETRED** tires OUT-PERFORM any all-rubber tread . . . Start faster . . . Stop quicker . . . are Safer for any weather on any road.

SEND FOR *FREE* BOOK
"*The* MIRACLE of *Penetred*"

Book of facts that every Fleet operator should know . . . Actual Use Records . . . Construction . . . Performance . . . and the Name of your nearest **PENETRED** Service Station. Write - Wire - Telephone

*T. M. Reg. CONSTRUCTION PATENTS APPLIED FOR

PENETRED CORP.
BLOCK 3
Marshfield, Wisconsin

accuracy

We're proud of our reputation for accuracy! For quality and dependability too! It's known coast to coast! Call on us, your licensed and bonded ticket printing specialists, to solve your ticket problems.

TICKET PRINTING by
General
GENERAL TICKET COMPANY
Division Cullum & Ghertner Co. – 309 Fifth Avenue, N., Nashville 3, Tenn.

a new model SW-25 Electric Cord Reel. The unit is of heavy duty construction with oversize bearings and shaft.

The unique features of this reel are the external trigger lock and the design used in getting the cable out of the reel.

The cable outlet has a long opening which is equipped with a roller at each end and a heavy side beading which gives greatly increased cable life.

This reel is also equipped with a swivel mounting which further reduces cable wear as the unit will swing when cable is pulled sideways.

Morris, Inc., 1065 East 61st St., Cleveland, Ohio.

The new electric door operator is currently being used in locations where frequent, dependable door operation is required. Doors and equipment are protected against accidental damage by an automatic safety switch built into the operating unit. The switch breaks motor contacts when the closing doors touch any obstruction. The safety control automatically resets itself.

For both single sliding and double parting doors, the Y-M CHIEF is located on the wall directly above the entrance. It is fastened in position by two bolts attached to the wall and one overhead support bolt fitting. A cable arrangement extending from the operator through pulleys at both sides of the opening to fittings on the door provides a direct cable drive.

Electric Cord Reel

Aero-Motive Mfg. Company, Kalamazoo, Michigan, announces

Masking Stand

A new, two-shelf stand for masking paper and tape—described as a "complete masking department on wheels"—has been announced by **Minnesota Mining and Manufacturing Co., St. Paul.**

Tradenamed the "Scotch" apron taper stand, the new all-metal stand has a top shelf for an apron taper, and a lower shelf to accommodate either tools or a second apron with a different width of masking paper.

The stand is sold separately

from the apron tapers in order to permit a shop to use its present apron taper, it was announced.

Apron tapers apply pressure-sensitive tape to the edge of masking paper automatically when the painter pulls out the paper. One-third the width of the tape is applied to the masking paper, leaving two-thirds of the tape's width exposed to hold the paper to the surface to be masked.

A cutting edge on the apron taper enables the painter to pull out whatever length of paper-and-tape he needs, it was pointed out.

Cold Liquid Cleaner

Extensive field tests have proved the success of a new formula developed by the **Du Pont Co., Wilmington 98, Del.**, for a cold liquid cleaner particularly suitable for use on electric motors and generators of varying size and effective for general machine and automotive maintenance.

The new formula, which makes possible rapid and low-cost cleaning, was developed by the Electrochemicals Department of the company in recognition of a long-standing industrial need. During the last year tests under actual service conditions and industrial routine usage have shown that this compounded product, called "Cleaning Mixture No. 49," possesses the qualities required of an effective cold spray for use in electric motor cleaning, automotive repair, and general maintenance. It dissolves grease rapidly, evaporates quickly, and is practically inert to ordinary electrical insulating materials, Du Pont states.

Entering or leaving, passengers' feet don't slip on the "ALUMALUN" treads of these buses operated by Public Service Coordinated Transport.

GUARD AGAINST SLIPPING ACCIDENTS WITH SLIP-PROOF "Alumalun" ~ *

When bus steps and platforms are equipped with slip-proof "ALUMALUN" treads and plates, boarding and alighting accidents are cut to a minimum.

Made of cast aluminum, with wear-resistant abrasive particles embedded in the walking surface, "ALUMALUN" assures a lasting sure-footed "grip" that keeps feet from slipping—wet or dry. An added safety factor is its light color, making steps clearly visible against darker roadway surfaces.

"ALUMALUN" treads are light in weight and are made to "stand-up" under constant use, thus reducing operating and maintenance costs.

Years of use under every condition of service by leading bus operators and manufacturers has demonstrated the safety and economies of using "ALUMALUN" as standard equipment.

You save 3 ways with "ALUMALUN": Operation...Maintenance...Safety

For full information write to:

AMERICAN ABRASIVE METALS CO.

461 Coit Street Irvington, New Jersey

*Reg. U. S. Pat. Off.

Plastic Coated Fabric

A new smooth surface plastic coated fabric which will be made in 14 solid decorator's colors, has been announced by the **U. S. Rubber Co., Rockefeller Center, New York 20.** The material, known as Royal Grain Naugahyde, was developed as a result of demand from decorators and manufacturers for a solid-colored, smooth grain plastic upholstery. It is designed for interior trim.

It is flexible and easy to tailor around curves, corners and edges. It has high resistance to edge-wear, scuffing, flexing and wrinkling. Other qualities are that it is not affected by perspiration, alcohol, oils, grease, acids and alkalis.

Ratch-A-Daptor

A newly-designed Ratch-A-Daptor that converts left or right ratchet by a simple ring shift has been introduced by the Herbrand Division, the **Bingham-Herbrand Corp.**, Fremont, Ohio.

The new Ratch-A-Daptor is more compact in design, stronger and simpler to handle, according to the manufacturer. The new ring convertor is an exclusive Herbrand design. The adaptor, when attached to any ½-in. drive T-handle, speeder, flex handle or extension handle, converts it into a ratchet extension.

THIS MAN WOULDN'T NEGLECT

A MACHINE IN HIS PLANT

...yet he hasn't had a Chest X-Ray!

He checks every piece of mechanical equipment he owns for wear, lubrication, efficiency.

Yet he fails to take the simple precaution of a Chest X-Ray to make sure he does not have tuberculosis. *Not because he's opposed to the X-Ray. Simply because he is not sufficiently informed—or just hasn't taken the time and trouble, or does not realize the seriousness of the problem.*

A Chest X-Ray is the first step toward detecting tuberculosis in its early stages. And in its early stages it can be cured with the least loss of time from work.

So, if you're the man above, that one simple reason should make you get your Chest X-Ray—*today*. But listen, see how serious this really is:

Between the ages of 15 and 34, tuberculosis leads all other diseases as a cause of death—although at no age are you safe from TB. Yet, if everyone does his part by getting a Chest X-Ray periodically, and the majority of cases thus discovered are followed up, we can eliminate TB entirely as a public health hazard!

Will you do your part today? Get a Chest X-Ray. It may mean your life!

Published in the public interest by:

McGRAW-HILL PUBLICATIONS

UTILITY DESTINATION *and* ROLLER SIGNS

1. They keep their new, bright appearance indefinitely
2. Made of washable, waterproof deluxe sign cloth
3. Lettering won't fade, peel, take off, or scratch
4. Wide variety of standard types or special designs
5. Dependable gear driven type of mechanism
6. Lettering specially designed for easy reading
7. Save money on maintenance and replacement
8. Prompt service on all orders

RAILWAY UTILITY COMPANY

ESTABLISHED 1905

2241 to 2247 INDIANA AVENUE — ZONE 16, CHICAGO

Eastern Office: Ross F. Hayes Co., 50 Church St., NEW YORK CITY — CANADIAN REPRESENTATIVE: Railway Power & Engineering Corp., Toronto, Can.
Special representative for Indiana, Ohio, and Michigan: Mr. Harry Stone, 5-121 General Motor Building, Detroit 2, Michigan.

RESTORE Battered and Rusted Threads

Flats and nicks eliminated — even heavily corroded threads quickly cleaned, so that nuts turn off and on freely! Think of the time and money saved! No more drilling or hack-sawing to remove damaged bolts and studs. Just slip on your Buckingham Thread Cleaner, tighten the jaws, then turn!

Buckingham Thread Cleaners follow the pitch of any right- or left-hand thread with root diameter from ¼" to 4". No need to insert or change dies. Cutting jaws adjust easily to proper size on the threads. The jaws should be placed below the damaged area and then turned off through that section. See your nearest Buckingham dealer — or write us today for further information.

THREE SIZES	Price
6103 — ¼" to 1" root diam.	$ 6.00
6104 — 1" to 2 5/16" root diam.	11.00
6106 — 2" to 4" root diam.	25.00
6204 — 1" to 2 5/16" root diam.	19.00

BUCKINGHAM MANUFACTURING CO., INC.
85-87 Travis Street — Binghamton, N. Y.

FARE COLLECTION EQUIPMENT

For ALL Your Needs!

FARE REGISTER, TYPE MR

No other fare collector excels this for fast, flexible, safe collection.

LOCK BOX COLLECTOR

New, compact non-registering box, gives instant visual audit, portable or stationary.

PORTABLE MONEY-METER

Speeds rear-door loading, helps maintain tight schedules during peak traffic periods.

Write now for free descriptive literature!

MONEY-METERS, Inc.
17 Warren Street, Dept. 8
Providence 7, Rhode Island

DOOR OPERATING EQUIPMENT
PNEUMATIC
ELECTRIC and
HYDRAULIC
WITH SENSITIVE DOOR EDGES AND AUTOMATIC TREADLES
ELECTRIC HEATERS
ALL TYPES
AUTOMATIC LAMPERS
VENTILATING FAN CONTROLS, Inc.
ELECTRIC CARS — TROLLEY COACHES
CONSOLIDATED
CAR-HEATING CO., Inc.
NEW YORK — ALBANY — CHICAGO

$100 REWARD
to any Fleet Operator who is getting genuine W. G. B. OIL CLAROFICATION without the use of genuine W. G. B. CARTRIDGES

REMEMBER THIS CLUE: You can get genuine W. G. B. OIL CLAROFICATION only when you use genuine W. G. B. CARTRIDGES.

Write for name of nearest W. G. B. Representative
W. G. B. OIL CLARIFIER, INC.
KINGSTON, NEW YORK

WHERE TO BUY

Specialties and services for economical operation and maintenance of buses

Scientific FARE COLLECTION
Reduce Front Door Crowding
Obtain Rider Statistics
by Installing
PEREY PASSENGER DISTRIBUTOR AND RIDER METER
PEREY TURNSTILES
Write for Information
PEREY TURNSTILE COMPANY
101 Park Ave. New York 17, N. Y.

CAP BADGES
450 BUS CHARM BUS LINES
BUS — TAXI — TRUCK
Single or Fleet order received based on your inquiry.
Write for descriptive literature
HOOK-FAST SPECIALTIES
Box 1420
Dept. I Providence, R. I.

BUS AGENTS
U. S. A.—CANADA—ALASKA
MEXICO
SCHEDULE INFORMATION CORRECTED MONTHLY
Russell's Official National Motor Coach Guide
$7.50 per year 12 issues
Published by
RUSSELL'S GUIDES, INC.
Cedar Rapids, Iowa

POINT - OF - DECISION ADVERTISING
More Leading Advertisers use Topflight Tape to clinch sales at retail level than any other Point of Decision stimulant. It goes up - stays up - costs less per day. Samples, prices, delivery - on request.
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Your inquiry will have Special Value . . .

If you mention this magazine, when writing advertisers. Naturally, the publisher will appreciate it . . . but, more important, it will identify you as one of the men the advertiser wants to reach with this message . . . and help to make possible enlarged future service to you as a reader.

EARLL

TROLLEY RETRIEVERS

Earll Trolley Retrievers set the pace for improvements in modern Trolley Bus Equipment. Shell or Bracket types available in either aluminum or malleable iron.

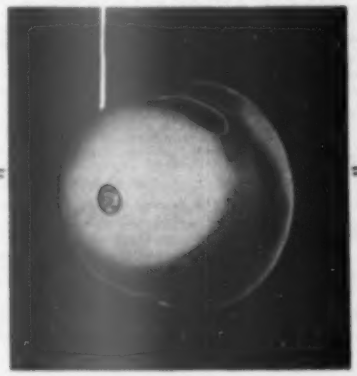
Earll Retrievers have ALWAYS been noted for long life. Earll Units installed on street cars in 1916—still in service! Earll #8 Units installed on Trolley Buses in 1935 — still 100% satisfactory. These "Streamlined Eights" weigh less, act faster, are simpler construction. Write for full information.

C. I. EARLL COMPANY, Inc.

YORK, PA.

FOREIGN AGENTS
INTERNATIONAL GENERAL ELECTRIC CO.
SCHENECTADY, N. Y.

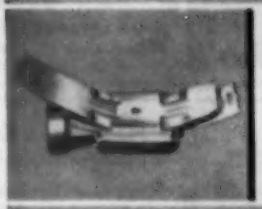
CANADIAN DISTRIBUTORS
RAILWAY & POWER ENGINEERING CORPORATION, LTD.



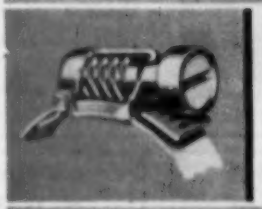
PROVED IN THE SKYWAYS BEST ON THE HIGHWAYS

BEST BECAUSE...

- UNIFORM CLAMPING PRESSURE *ALL* AROUND
- WILL NOT COLLAPSE OR DISTORT THIN WALL HOSE



- NON-WELDED MECHANICALLY INTERLOCKED SADDLE
- NO LOOSE PARTS



- WORM DRIVE GEAR ACTION
- SELF-LOCKING
- VIBRATION-PROOF
- EXTRA LONG TAKE-UP

- GREATER CLAMP STRENGTH
- RUST RESISTANT
- FASTER TO INSTALL
- CAN BE RE-USED

"Aero-Seal"

T. M. Reg. U.S. Pat. Off.

HOSE CLAMPS

Patented — U. S. Pat. Nos. 2,186,679 2,296,273 Other Patents Pending

BREEZE CORPORATIONS, INC.

36 South Sixth Street • Newark 7, New Jersey

SEARCHLIGHT SECTION

EMPLOYMENT • BUSINESS • OPPORTUNITIES • EQUIPMENT—USED or RESALE

UNDISPLAYED RATE:

(Not available for equipment advertising) 90c a line, minimum 4 lines. To figure advance payments, count 5 average words as a line.

INDIVIDUAL EMPLOYMENT WANTED undisplayed advertising rate is one-half of above rate, payable in advance.

PROPOSALS, 90 cents a line an insertion.

INFORMATION:

BOX NUMBERS care of publication New York, Chicago or San Francisco offices count as one additional line in undisplayed ads.

DISCOUNT of 10% if full payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

DISPLAYED RATE:

The advertising rate is $8.50 per inch for all advertising appearing on other than a contract basis. Contract rates quoted on request.

AN ADVERTISING INCH is measured ⅞ inch vertically on one column, 3 columns—30 inches—to a page.

NEW ADVERTISEMENTS received by 10 A.M. April 25th will appear in the May issue subject to limitation of space available.

BUS CUSHION REUPHOLSTERING

PROMPT, DEPENDABLE SERVICE

Servicing Buses of

VALLEY TRANSP. CO., Lemoyne, Pa.
DeCAMP BUS LINES, Livingston, N.J.
ORANGE & BLACK BUS LINES, Fairview, N.J.

WRITE—WIRE—OR PHONE

BERGEN AUTO UPHOLSTERY CO.

40 Glen Road Rutherford, New Jersey
Rutherford 3-8929

NATIONAL COACH BODY Repair Shop—Pontiac, Mich.

Repair of GMC accident and fire damage — Also fleet painting

Equipped to handle complete repairs. All work done by factory trained men.

Wire, write or phone for estimate

Business Phone 4-7941
Resident Phone Pontiac 3-3948

Address: 3121 West Huron, Pontiac, Mich.

Mgr. J. W. KUKLINSKI

FITZJOHN BUSES

Used on regular runs until the expiration of our leases. This is not the ordinary run of worn out equipment. Will not refuse any reasonable offer.

1—1941 300 Fitzjohn Deraliners, 28 pass.
2—1941 316 Fitzjohn Deraliners, 28 pass.

Buses are all aluminum bodies and are standard Fitzjohn equipment, complete with tires. None operated over 35,000 miles since receiving motor overhauls.

GLADES MOTOR LINES, INC.

Telephone 564 or 602 W
1015 Lynewood Ave. Fort Myers, Fla.

CAPITAL DISTRICT N. Y. OPERATION

Established over 25 years: good fare and labor contract. New and late model equipment. $101,000—1948 Revenue; $114,000—1949. Will sell 100 percent control $60,000.00. Terms to qualified operator. Answer in confidence, stating ability to make down payment of about 50 percent. Will finance proper buyer two to four years.

BO 6139 Bus Transportation
330 W. 42nd St., New York 18, N. Y.

WANT TO TRADE

1—45 Mod.-32 pass.-Blue Bird Body (conventional type) with K-7 International motor.
1—45 Mod.-29 pass.-Blue Bird body (conventional type) with K-5 International motor.
1—47 Mod.-29 pass.-Superior Body (conventional type) with K-5 International motor.
1—41 Mod.-33 pass.-Superior Body (school type) with Ford V-8 motor.

All of the above buses are now in operation daily and have excellent motors and good tires.

Would prefer trading for small Yellow Coaches with Chevrolet motors. Prefer from 21-25 passenger size with double doors.

HARRIMAN CITY BUS LINE
P. O. Box 10 Harriman, Tennessee

WANTED

10 CITY TYPE 44-PASSENGER WHITES. WE PREFER BUSES LESS THAN 5 YEARS OLD. WRITE

W-6166
Bus Transportation
330 W. 42nd St., New York 18, N. Y.

REPLIES (Box No.): Address to office nearest you
NEW YORK: 330 W. 42nd St. (18)
CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

POSITION VACANT

WANTED Assistant to Bus Maintenance Superintendent for small operation. Must have practical experience, business ability and able to lay out work. Reply to P 2387, Bus Transportation.

POSITIONS WANTED

BUS OR TRUCK Maintenance Superintendent with 16 years practical experience in gas and diesel equipment, seeks connection with moderate size operation. Familiar with present-day cost and labor problems, layout and follow up. Location secondary. PW 1936, Bus Transportation.

POSITION WANTED—General Manager—21 years experience seeks position. 100-150 bus operation. Wide experience with personnel, labor and public relations problems. Also with utility commissions in fare and other regulatory matters. PW 2339, Bus Transportation.

BUSINESS OPPORTUNITIES

Opportunity for Mechanic

to purchase small company southwestern Vermont town. $3,000.00 required. BO 6138, Bus Transportation.

For Sale—City Bus Line

In California city of 18,000 population. 4 buses, garage, and equipment—$14,000.00. BO 2667, Bus Transportation.

WANTED

ANYTHING within reason that is wanted in the field served by Bus Transportation can be quickly located through bringing it to the attention of thousands of men whose interest is assured because this is the business paper they read.

FOR SALE

Air Line Ground Transportation

between Miami Beach and International Airport, Miami, Florida, doing $100,000.00 business annually. Cadillac and Packard equipment. Florida Railroad Commission certificate No. 207. Terms, price $35,000.00. Apply Miami Beach Air Line Coaches, 464 N. W. 16th Street, Miami, Florida. Telephone 3-8131.

FOR SALE
CHARTER BUSINESS

Glenwood Sightseeing Bus Co.
I. C. C. Rights for 8 States and 3 37 passenger buses.
Mospeth, Long Island, N. Y.
Phone: Hopkins 3-3161

FOR SALE

2—1947 29-Passenger GMC Diesel Bus with 4 cylinder motor.

These buses are in good condition and have low mileage.

THE BADGER SYSTEM
1313 Regent St. Madison 5, Wis.

Have 2 new Ford F 7 Bus Chassis, 199" Wheel Base, 2 Speed axle, 900x20 10 Ply Tires. For Sale. Price, Factory Invoice.

HOWARD PORE, INC.
516 Portage Street
Kalamazoo, Michigan
Phone 3-2541

USED BUS STOP!

All out for the country's best bus bargains! Here is an array of the finest group of used buses ever offered. Clean, modern, fine-running buses—the pick of the best used buses of the country's leading operators. These buses have been carefully and consistently maintained by expert mechanics to insure long life. Make your selection from this blue ribbon group. They are the cream of the crop. Stop guessing—save money—buy Keena approved and you won't go wrong. Priced extremely low.

buses. Here are several standouts for April:

SAVE MONEY ON THESE APRIL SPECIALS!

3 3701 GMC parlor diesels, 37 passenger, full reclining seats, recently rebuilt by Karpen, bodies and motors in excellent condition—only.....$3,750.00 each
5 2902 GMC parlor diesels, 29 passenger, reclining seats, only.....$2,300.00 each

CITY TRANSIT

Gasoline

20 C36, 36-passenger, ACF's, 1947 models.
7 31S, ACF, 31-passenger, 1941 models.
1 TGM 3207, 1947 model.
30 Fords, 1941 to 1946 models.
20 Whites, 40- and 45-passenger, 1942 and 1944 models.
8 GMC 1204's, 29-passenger, very clean, double doors.
2 Fitzjohn 310, 1944 models, good shape.
12 2706's, 27-pass., 1941-42 models, 270 engine.
15 21-passenger, model 733, Chevrolet motor.
13 26-pass. 733, double doors, Chevrolet motors.
4 School Buses conventional type, full head room, Ford and Chevrolet, 1946 and '47 models, 28 to 33 passenger.
4 L25 Macks, 1941, 23-passenger, EN 330 engine, very clean.
5 GMC model 728, 32-passenger, 451 engine, A1 condition.
1 Superior trailer coach, completely equipped living quarters.

PARLOR & SUBURBAN

Gasoline

6 37-pass. 1942 model Aerocoaches, Tropic Aire full recl. seats, excellent mechanical condition.

10 33-passenger 1942 model Aerocoaches, reclining seats.

46 P46 Aerocoaches, 1946-47 models, 37-passenger, reclining seats, very clean.

27 P37 Aerocoaches, 1944 models, 37 passenger, Red Diamond 450 engine.

10 Becks, 1942 models, 33-passenger, real buys.

3 Fitzjohn, 1946, 33-passenger, beautiful shape.

1 PG2505, new motor, very clean.

4 37-passenger Aerocoaches, 1943 models.

5 37-passenger Aerocoaches, 1945 models.

Write for prices on These Specials

10 Model 44D Twins, 44 passenger, 1947; 2 GMC 3703 diesels, 37 passenger, 1948 models—like new; 10 38-passenger Twins, model 38S, 1947; 10 Flxibles, 25 and 29 passenger, late models.

Largest Selection of Used Bus Bargains in the USA

All the above equipment is immediately available. Your inquiries and inspection invited.

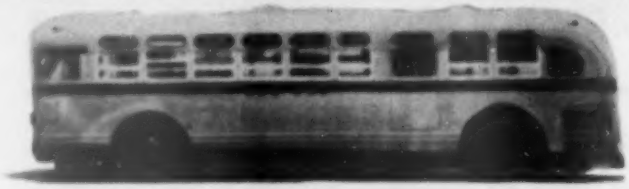
You will find all of these buses worthy of your inspection and purchase. Foreign market buyers are particularly assured of good value. Buses located in various parts of the U.S.A.

GEORGE P. KEENA

Representing some of the largest Bus Lines in the U.S.A.

1936 North Clark Street, Chicago 14, Ill. Phone MOhawk 4-3200

ESSEL *offers* 36-40-45 PASSENGER



YELLOW COACHES

WE ALSO CARRY

FITZJOHNS • FORDS • AEROCOACHES

and

23-25 *Passenger*

SMALL YELLOW COACHES

ESSEL BUS & EQUIPMENT CO.

19 EUCLID AVE., NEWARK 5, N. J.

MArket 2-8055

FOR SALE

6—1946—28 Pass. Ford Coaches, Model 29B Transit.
6—1945—28 Pass. Ford Coaches, Model 29B Transit.
2—1942—38 Pass. White Coaches, Model 786 Transit.
1—1941—33 Pass. Superior Parlor Coach, WXLC-3.
2—1941—32 Pass. Superior Coach, Avenue Model, JXD.
1—1940—32 Pass. Superior Coach, Avenue Model, JXD.
1—1940—42 Pass. White Coach, Model 788, Transit.
5—Ohmer Model 290 Registers.
5—Ohmer Model 291 Registers.
5—Cleveland Lock Boxes.
1204 and 2401 Yellow Parts
Superior Avenue Model Parts

TRANS-BRIDGE LINES, INC.

Broad Street Phillipsburg, N. J.
Phone 5-1125

2—1944 Beck.....37-41 Pass.
3—1938 ACF's.....37-41 Pass.
5—1942 Fords, Pusher Type.....29 Pass.

RELIABLE BUSES, INC.

1377 East New York Avenue
Brooklyn 12, N. Y. Dickens 5-6700

WE BUY WE SELL

BUSES
RHODES

SINCE 1905

RHODES BUS & EQUIPMENT CO., INC.

TIMES BLDG., NEW YORK, N. Y. BRYANT-9-2584-5

FOR SALE

New Engines
Hercules WXLC-3
404 Cubic Inch

C. J. HUG CO.
Highland, Ill.

1—1941 Cadillac
AIRPORTER
11 passengers

FS 6116, Bus Transportation,
330 W. 42nd St., New York 18, N. Y.

FOR SALE

6—G.M. Diesel Coaches. Model TDH 4007-40 Passenger 1947 — excellent condition.

FS-2408
Bus Transportation
330 W. 42nd Street, New York 18, N. Y.

BUSES FOR SALE

1 Aerocoach, 1941, 37 Passenger, Gasoline
1 Aerocoach, 1942, 37 Passenger, Diesel

Call or Write

Central Swallow Coach Lines, Inc.

724 North Capitol Ave. Phone LI. 5481
Indianapolis 4, Indiana

1942 MODEL PONY CRUISER

Ford power, 18 passenger, rubber seats, rebuilt motor. This pony very clean throughout. Price $1,250.00.

KALAMAZOO COACHES, INC.
4600 Lovers Lane, Kalamazoo, Mich.

FOR SALE

Aerocoaches, year 1943 and later from $3,500.00 up. 749-751 Yellow Coaches $7,500.00 up.
New and used parts for above coaches and 797 coaches.

• • •

Reconditioned GMC 671 Diesel engines.

THE BALTIMORE MOTOR COACH CO.

619 W. Biddle Street Baltimore 1, Maryland
Verson 5086

FOR SALE

1941 Model #1919 Yellow Coach, pusher type with 27 reclining seats. Motor, brakes and all running gears have been overhauled. The body has been completely rebuilt, inside and out, and repainted. This coach is in first class condition with no mileage since it was overhauled. Call or write

MIDDLESEX BUS COMPANY

P. O. Box 384 Woodbridge, New Jersey
Phone WOodbridge 8-2364

FOR SALE

2-32 Pass. Buck Mainliners with Reclining Seats. 1945 Models. 1-24 Pass. Flixibles with Reclining Seats. 1941 Model. 1-28 Pass. Flixibles with Reclining Seats. 1947 Model. 1-27 Pass. Ford Clay Type Bus. 1947 Model. Has never been used and is brand new. 8-731 Yellow Coaches.
All the Above Equipment is in Top Top Shape.

ROYAL EQUIPMENT SALES, INC.

218 North 8th Springfield, Ill.

FOR SALE — GOOD CONDITION

1—1940—40 pass. L-35 Mack—EN 350 motor.
2—1941—25 pass. L-35 Mack—EN 350 motor.
2—1947—33 pass. Flixibus—Buick Power.

Price right for prompt sale.

BORO BUSES
RED BANK, N. J.

FOR SALE

1948 Pony Cruiser, 25 Pass., used 1 year. Air Foam seats, paint very good, no wrecks. Will sell for $3,000.00.

FOREST E. PARK
415 N. Plum St., Pontiac, Ill.

SPARTAN COACHES

21-25-29 passenger

Distributor for Southern Virginia, North Carolina, South Carolina, Georgia, Alabama and Florida.

BRICKERT OIL CO., Farmville, Va.

FOR SALE

1947 Transicoach, 27 Pass. Hercules Motor —Air Brakes—W.B. 171"—Low Mileage—A-1 Cond. Reason for selling Bus, too large.

See this Bus and make an offer.

LEPLEY & KLINE BUS LINE
Beaver Springs, Penna.

DISMANTLING 50 BUSES

We are dismantling fifty (50) Twin Coach buses, city type, 41-G 1941. They are equipped with 6 cyl. Hercules diesel engines, electric drive. All parts are available for immediate delivery. We also have available, city type bus seats.

FS 6000, Bus Transportation,
330 W. 42nd St., New York 18, N. Y.

GOOD USED BUSES

Original operator-owned equipment that has been expertly and regularly serviced. Included in this group are ten GMC 2706 coaches just taken out of service and very clean, powered with 270 engine, 25, 27 and 31 passenger. We also offer:

GMC 756, 755, 1204, 2401 and 2701; L-35 Mack; Fitzjohn 310 CityLiner; Ford 298.

Write for photos and location. You will be agreeably surprised at the low prices. Some of these buses are probably located near your city.

REX EQUIPMENT SALES, Inc.

Wholly-owned Subsidiary of National City Lines, Inc.

616 S. Michigan Ave. Chicago 5, Ill.
WEbster 9-7030

NEW AND USED BUSES

Bought and Sold

WOLFINGTON BODY CO., INC.
33rd and Arch Sts. Phila., Pa.
Tel. Baring 5252

1946 & 1947 . . G. M.
1945 & 1944 . . Flxible 29 pass.
1944 & 1945 . . Aerocoach 37 pass.
1942 . . . . . Aerocoach 33 pass.
1941 . . . . . Aerocoach 28 pass.
1944 & 1942 . . Beck 33 pass.
1945 Fitzjohn City Liner 35 pass.
1945 & 1942 Ford Transits

Good buys available in most any other make or model.

BRICKERT OIL CO.
Phone 283 Farmville, Va.

GIVEN AWAY

Buses at sacrifice prices, let us know your needs. Big display at our sales lot of Ford Transits, Airport Coaches, 37 pass., Cruisers, etc. Time payments, photo's available.

McLaughlin Bus & Equipment Co.
1224 No. Main St., Providence 4, R. I.

---

3 1945 298R Flxibles

In good all around condition
All three for $10,000 including tires
Call or write:

CONLEY BUS LINES
Paintsville, Kentucky

We Have For Sale—

1 1946, 33 Pass., Model 743 Yellow Coaches
2 1946, 37 Pass., 6 cyl. Model 3701, Yellow Diesel.
1 1941, 37 Pass., 6 cyl. Model 3701, Yellow Diesel.

B. & F. Bus Service, Inc.
570 13th Street West New York, New Jersey

FOR QUICK SALE

1. 1936 White 25 Passenger . . . . $ 500
1. 1942 Flxible 29 Passenger $2500
4. 1941 Yellows 24 Passenger $2000

FOUR YELLOWS ARE IN A1 CONDITION

DAVID ATAMANCHUK
400 RIVER ROAD GD. ARLINGTON, R. I.

Johnson Fare Boxes

For Buses and Street Cars

A Reliable Source of Supply

Johnson Type D Motorized and Hand Operated

Cleveland Lock Type

Johnson Type J Electric

FRANK M. JUDGE & COMPANY, INC.
7010 Empire State Building New York 1, N. Y.
LO 5-7373-3

'LEASING PAYS'

24- 33- 36-PASSENGER RECLINERS
LATE MODELS — SPLENDID CONDITION

Short or Long Term Leases — Mileage Basis
50% Credit in Event of Purchase

WILLETT BUS SERVICE, INC.
332 S. MICHIGAN AVE. HA 7-6280 CHICAGO 4, ILL.

WE HAVE *FOR SALE or TRADE* ONE OR MORE IMMEDIATE DELIVERY

- JOHNSON-D—(Crank)
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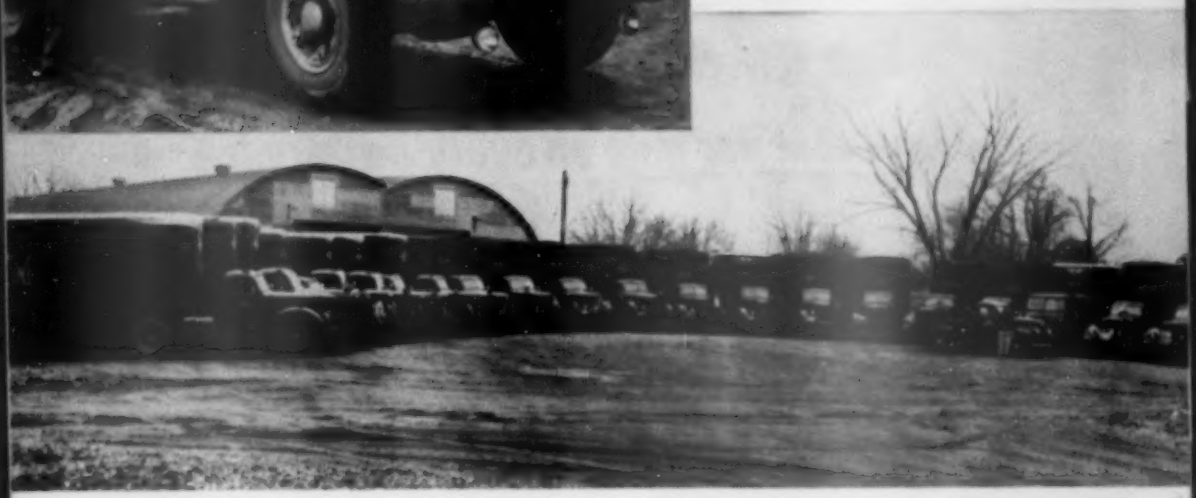
● **Left:** Charles Meyers, veteran driver of 11 years' service with G & A, guided this International tractor to an outstanding mileage record.

● **Below:** A representative group of the 82 fleet units operated by G & A Truck Lines, Inc., White Pigeon, Michigan, circles the yard at G & A's Three Rivers Terminal.



G & A Truck Lines chalk up 175,000-mile record

● Starting with two tractors and two trailers in 1936, Glenn McNamara of White Pigeon, Michigan, has built his G & A Truck Lines up to an operation that employs 82 fleet units and is the second largest business of its kind in Michigan. From a recent experience of this successful fleet operator comes a clue to bigger savings for you.

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